HORIZON NUCLEAR POWER

WYLFA NEWYDD

ENERGY WORKING FOR BRITAIN

Wylfa Newydd Project

5.2 Shadow Habitats Regulations Assessment Report (Part 2/2)

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Appendix A Annex I and migratory species recorded during the surveys

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Table A1 Annex I and migratory waterbird species recorded in the surveys

Table A1 summarises the Annex I and migratory waterbird species recorded in the vantage point (September 2010 to September 2014), intertidal (April 2012 to March 2015) and boat-based transect surveys (May 2016 to May 2017), with summary information on their recorded abundance and frequency of occurrence in the survey areas.

Species		Seasonal occurrence and peak abundance (as determined in the different surveys)[1]	Status of species in survey area	Seasonally relevant foraging range or connectivity threshold distance ('Not required' means the species is considered to be present on passage or as a vagrant)	Periods potentially relevant to the species at Wylfa according to occurrence in surveys (breeding =B, winter= W, passage = P)	UK SPAs for breeding (B), wintering (W) or passage (P)
Barnacle goose	*Branta leucopsis*	Sep; single record 1 - VP	Vagrant	15-25km for winter (Pendlebury *et al.* 2011)	W P	W
Bar-tailed godwit	*Limosa lapponica*	Apr – Sep; total of six survey records only, with all but one comprising single birds 8 - VP 1 - PP 1 - CL	Occ. passage visitor	Use generic 20km wintering wader/wildfowl threshold, if required, but probably relevant only as a passage species on the development site.	P	W
Black-tailed godwit	*Limosa limosa*	Apr – single survey record only 1 - CL	Vagrant	Use generic 20km wintering wader/wildfowl threshold, if required, but probably relevant only as a passage species on	P	B W P

[1] Surveys are coded as VP – vantage point surveys; PP – surveys of Porth-y-pystill; CL – surveys of Cemlyn Lagoon; CB – surveys of Cemlyn Bay

Species		Seasonal occurrence and peak abundance (as determined in the different surveys)[1]	Status of species in survey area	Seasonally relevant foraging range or connectivity threshold distance ('Not required' means the species is considered to be present on passage or as a vagrant)	Periods potentially relevant to the species at Wylfa according to occurrence in surveys (breeding =B, winter= W, passage = P)	UK SPAs for breeding (B), wintering (W) or passage (P)
				the development site.		
Common scoter	*Melanitta nigra*	Apr-Aug 63 - VP	Passage/non-breeding birds during summer	NRW advice – restrict to birds within SPA; only Liverpool Bay SPA of relevance	W P	B W
Coot	*Fulica atra*	Likely present all year but Sep – Apr from CL surveys (which were restricted to this period) 48 - CL	Likely resident / winter	Use generic 20km wintering wader/wildfowl threshold	B W	W
Curlew	*Numenius arquata*	Present all year Note, count data refer to both curlew and whimbrel but whimbrel only likely to occur in any numbers during (mainly spring) passage. 104 - VP 220 - PP 39 - CB 265 - CL	Passage/winter/possible breeding (although birds present in breeding season also likely to include immatures and other non-breeders)	Use generic 10km breeding wader/wildfowl threshold and Generic 20km wintering wader/wildfowl threshold	B W P	B W

Species		Seasonal occurrence and peak abundance (as determined in the different surveys)[1]	Status of species in survey area	Seasonally relevant foraging range or connectivity threshold distance ('Not required' means the species is considered to be present on passage or as a vagrant)	Periods potentially relevant to the species at Wylfa according to occurrence in surveys (breeding =B, winter= W, passage = P)	UK SPAs for breeding (B), wintering (W) or passage (P)
Dunlin	*Calidris alpina*	Jan - Oct; peak abundance in Jul 80 - VP 6 - CB 21 - CL	Occ winter and passage visitor	Use generic 20km wintering wader/wildfowl threshold	W	B W P
Eider	*Somateria mollissima*	Apr – Jun; 3 survey records only 3 - VP	Vagrant	80km for breeding season foraging range (Thaxter et al. 2012)	B P	B W
Gadwall	*Anas strepera*	Nov – Dec 1 - PP	Vagrant	2.5km for winter foraging range (Johnson et al. 2014). Therefore, a range of 3km is used for potential connectivity with SPAs for wintering populations.	W	B W
Golden plover	*Pluvialis apricaria*	Nov - Apr 43 - VP 176 - CL	Passage/ winter visitor	Use generic 20km wintering wader/wildfowl threshold	W P	B W
Goldeneye	*Bucephala clangula*	Dec – Feb; 4 records only	Winter	Use generic 20km wintering wader/waterfowl threshold	W P	W

Species		Seasonal occurrence and peak abundance (as determined in the different surveys)[1]	Status of species in survey area	Seasonally relevant foraging range or connectivity threshold distance ('Not required' means the species is considered to be present on passage or as a vagrant)	Periods potentially relevant to the species at Wylfa according to occurrence in surveys (breeding =B, winter= W, passage = P)	UK SPAs for breeding (B), wintering (W) or passage (P)
		1 - VP 7 - CL				
Great-crested grebe	*Podiceps cristatus*	Jan - Oct 2 - VP 2 - CL	Resident / winter	Use generic 10km breeding wader/waterfowl threshold and Generic 20km wintering wader/waterfowl threshold	B W P	B W
Greenshank	*Tringa nebularia*	Oct – Mar; six survey records only 1 - VP 1 - CL	Occ. on passage	Use generic 10km breeding wader/waterfowl threshold and Generic 20km wintering wader/waterfowl threshold	W P	B W P
Grey plover	*Pluvialis squatarola*	Nov - Apr 2 - VP 5 - CB 10 - CL	Occ. Passage/winter visitor	Use generic 20km wintering wader/waterfowl threshold	W P	W P
Greylag goose	*Anser anser*	Present all year; peak numbers in summer 19 - VP	Resident	15-20km for winter foraging range (Pendlebury et al. 2011)	B W	B W

Species		Seasonal occurrence and peak abundance (as determined in the different surveys)[1]	Status of species in survey area	Seasonally relevant foraging range or connectivity threshold distance ('Not required' means the species is considered to be present on passage or as a vagrant)	Periods potentially relevant to the species at Wylfa according to occurrence in surveys (breeding =B, winter= W, passage = P)	UK SPAs for breeding (B), wintering (W) or passage (P)
		25 - CL				
Knot	*Calidris canutus*	Oct – Dec; 2 survey records only 8 - CL	Occ. winter visitor	Use generic 20km wintering wader/waterfowl threshold	W	W P
Lapwing	*Vanellus vanellus*	Aug - Feb 95 - VP 2 - PP 29 - CB 128 - CL	Occ. Winter/passage visitor	Use generic 20km wintering wader/waterfowl threshold	W P	W
Little egret	*Egretta garzetta*	Present all year 3 - VP 1- PP 5 - CL	Resident / passage	Use generic 10km breeding wader/waterfowl threshold and Generic 20km wintering wader/waterfowl threshold	B W	W P
Little grebe	*Tachybaptus ruficollis*	Likely present all year but Sep – Apr from CL surveys (which are restricted to this period) 1 - VP (single winter record)	Likely resident / winter	Use generic 10km breeding wader/waterfowl threshold and Generic 20km wintering wader/waterfowl threshold	B W	W P

Species		Seasonal occurrence and peak abundance (as determined in the different surveys)[1]	Status of species in survey area	Seasonally relevant foraging range or connectivity threshold distance ('Not required' means the species is considered to be present on passage or as a vagrant)	Periods potentially relevant to the species at Wylfa according to occurrence in surveys (breeding =B, winter= W, passage = P)	UK SPAs for breeding (B), wintering (W) or passage (P)
		5 - CL				
Mallard	*Anas platyrhynchos*	Present all year; peak numbers in autumn 53 - VP 65- PP 123 - CL	Resident / winter	0.5-15km for mean winter foraging range (Johnson et al. 2014). Therefore, a range of 15km is used for potential connectivity with SPAs for wintering populations. Use generic 10km breeding wader/waterfowl threshold	B W P	W
Oystercatcher	*Haemotopus ostralegus*	Present all year 26 - VP 41- PP 20 (CB) 35 - CL	Resident breeding / winter	Breeding season range taken as 7km, given species typically uses foraging sites within 6-7km of breeding sites [RD295] NRW has advised that wintering birds reliant on feeding areas in/near SPA inter-tidal habitat, but generic 20km wintering wader/waterfowl threshold is applied on a precautionary basis.	B W	B W
Pink-footed goose	*Anser brachyrhynchus*	May; single survey record.	Vagrant	15-20km for winter [RD255], if required but probably relevant	P	W

Species		Seasonal occurrence and peak abundance (as determined in the different surveys)[1]	Status of species in survey area	Seasonally relevant foraging range or connectivity threshold distance ('Not required' means the species is considered to be present on passage or as a vagrant)	Periods potentially relevant to the species at Wylfa according to occurrence in surveys (breeding =B, winter= W, passage = P)	UK SPAs for breeding (B), wintering (W) or passage (P)
		3 - VP		only as a passage species on the development site.		
Pintail	*Anas acuta*	Oct – Jan; 4 survey records only 2 - PP	Winter/ vagrant	1.3-18.5km for mean winter foraging range [RD143]. Therefore, a range of 19km is used for potential connectivity with SPAs for wintering populations.	W	W
Red-breasted merganser	*Mergus serrator*	Present all year 12 - VP 4- PP 6 - CL	Resident	Use generic 10km breeding wader/waterfowl threshold and Generic 20km wintering wader/waterfowl threshold	B W P	W
Redshank	*Tringa tetanus*	Present all year 13 - VP 15 - PP 7 - CB 19 - CL	Passage/winter/ possible breeding (although birds present in breeding season also likely to include	Use generic 10km breeding wader/waterfowl threshold and Generic 20km wintering wader/waterfowl threshold	B W P	B W P

Species		Seasonal occurrence and peak abundance (as determined in the different surveys)[1]	Status of species in survey area	Seasonally relevant foraging range or connectivity threshold distance ('Not required' means the species is considered to be present on passage or as a vagrant)	Periods potentially relevant to the species at Wylfa according to occurrence in surveys (breeding =B, winter= W, passage = P)	UK SPAs for breeding (B), wintering (W) or passage (P)
			immatures and other non-breeders)			
Ringed plover	*Charadrius hiaticula*	Present all year; peak abundance in summer/autumn 65 - VP 1 - PP 4 - CB	Possible breeding /passage/winter	Use generic 10km breeding wader/waterfowl threshold and Generic 20km wintering wader/waterfowl threshold	B W P	B W P
Sanderling	*Calidris alba*	Apr – Aug; 3 survey records only 3 - VP	Occ. passage visitor	Not required	P	W P
Scaup	*Aythya marila*	Jul; single survey record only 1 - VP	Vagrant	Not required	P	W
Shelduck	*Tadorna tadorna*	Jan – Jul 7 - VP 2- PP 8 - CL	Resident / winter	Use generic 10km breeding wader/waterfowl threshold and Generic 20km wintering wader/waterfowl threshold	B W	W

Species		Seasonal occurrence and peak abundance (as determined in the different surveys)[1]	Status of species in survey area	Seasonally relevant foraging range or connectivity threshold distance ('Not required' means the species is considered to be present on passage or as a vagrant)	Periods potentially relevant to the species at Wylfa according to occurrence in surveys (breeding =B, winter= W, passage = P)	UK SPAs for breeding (B), wintering (W) or passage (P)
Shoveler	*Anas clypeata*	Oct – Jun 2 - PP 5 - CL	Mainly winter (only 2 records, totaling 3 birds, from after Feb)	>2.5km for mean winter foraging range [RD143]. Therefore, a range of 2.5km is used for potential connectivity with SPAs for wintering populations.	W	B W
Snipe	*Gallinago gallinago*	Aug – Mar; 4 survey records only 23 - VP 4 - CL	Occ. passage/winter visitor1	Use generic 20km wintering wader/waterfowl threshold	W P	W
Teal	*Anas crecca*	Sep – Jun; peak numbers in winter 20 - VP 9- PP 23 - CL	Winter / resident	0.8-8.4km for mean winter foraging range [RD143]. Therefore, a range of 9km is used for potential connectivity with SPAs for wintering populations. Use generic 10km breeding wader/waterfowl threshold	B W	W
Tufted duck	*Aythya fuligula*	Mar – Oct; 3 survey records only 2 - VP	Resident	Use generic 10km breeding wader/waterfowl threshold and	B W	W

Species		Seasonal occurrence and peak abundance (as determined in the different surveys)[1]	Status of species in survey area	Seasonally relevant foraging range or connectivity threshold distance ('Not required' means the species is considered to be present on passage or as a vagrant)	Periods potentially relevant to the species at Wylfa according to occurrence in surveys (breeding =B, winter= W, passage = P)	UK SPAs for breeding (B), wintering (W) or passage (P)
		2- PP 1 - CL		Generic 20km wintering wader/waterfowl threshold		
Turnstone	*Arenaria interpres*	Present all year 39 - VP 20 - PP 14 - CB 4 - CL	Passage/ winter/possible over-summering non-breeders	Use generic 20km wintering wader/waterfowl threshold	W P (also over-summering non-breeders)	W
Whimbrel	*Numenius phaeopus/*	See above for curlew	Likely passage visitor only	Not required	P	B P
Wigeon	*Anas penelope*	Sep – May; peak numbers in winter 130 - VP 235 - PP 98 - CL	Passage / winter	2.5-2.8km for mean winter foraging range [RD143]. Therefore, a range of 3km is used for potential connectivity with SPAs for wintering populations	W	B W

Table A2 Annex I and migratory seabird species recorded in the surveys

Table A2 summarises the Annex I and migratory seabird species recorded in the vantage point (September 2010 to September 2014), intertidal (April 2012 to March 2015) and boat-based transect surveys (May 2016 to May 2017), with summary information on their recorded abundance and frequency of occurrence in the survey areas.

Species		Seasonal occurrence and peak abundance (as determined in the different surveys)[2]	Status of species in survey area	Seasonally relevant foraging range or connectivity threshold distance ('Not required' means the species is considered to be present on passage or as a vagrant)	Periods potentially relevant to the species at Wylfa according to occurrence in surveys (breeding =B, winter= W, passage = P)	UK SPAs for breeding (B), wintering (W) or passage (P)
Arctic skua	*Stercorarius parasiticus*	May – Jul but boat-based surveys only cover May – Aug). 2 - VP 3 - BB	Passage	62.5 (±17.7)[3]km for breeding season foraging range [RD330]	P	B
Arctic tern	*Sterna paradisaea*	Apr – Aug. Note, both VP and BB count data refer to both common and Arctic terns, with the two species recorded as a combined 'commic' tern grouping	Breeding	24.2 (±6.3)km for breeding season foraging range [RD330] See also [RD365] for modelling of foraging range	B	B

[2] Surveys are coded as VP – vantage point surveys; PP – surveys of Porth-y-pystill; CL – surveys of Cemlyn Lagoon; CB – surveys of Cemlyn Bay

[3] The standard deviation about the mean maximum foraging range is also presented where this is provided by Thaxter *et al.* [RD330].

Species		Seasonal occurrence and peak abundance (as determined in the different surveys)[2]	Status of species in survey area	Seasonally relevant foraging range or connectivity threshold distance ('Not required' means the species is considered to be present on passage or as a vagrant)	Periods potentially relevant to the species at Wylfa according to occurrence in surveys (breeding =B, winter= W, passage = P)	UK SPAs for breeding (B), wintering (W) or passage (P)
		224 - VP 988 - BB (Note, this is the peak 'population' estimate for the Block 1 and 2 survey areas, as opposed to simply the raw count data)				
Black guillemot	*Cepphus grylle*	Feb - Aug 8 - VP 3 - BB	Breeding season and winter visitor to site.	Foraging range data for the species are not available but it is well established that the species tends to use inshore waters for foraging [RD215]	B W	No UK SPAs
Black-headed gull	*Chroicocephalus ridibundus*	Present all year; peak abundance in late winter/spring 570 - VP 150 - PP 15 - CB 812 - CL 10 - BB	Breeding/ wintering/ passage/resident	25.5 (±20.5)km for breeding season foraging range [RD330]	B W	B
Common gull	*Larus canus*	Present all year; peak abundance in winter	Passage/ winter/over-	50km for breeding season foraging range [RD330]	W P (also over-	B

Species		Seasonal occurrence and peak abundance (as determined in the different surveys)[2]	Status of species in survey area	Seasonally relevant foraging range or connectivity threshold distance ('Not required' means the species is considered to be present on passage or as a vagrant)	Periods potentially relevant to the species at Wylfa according to occurrence in surveys (breeding =B, winter= W, passage = P)	UK SPAs for breeding (B), wintering (W) or passage (P)
		175 - VP 95 - PP 9 - CL	summering non-breeders (species does not breed in Wales)	(	summering non-breeders)	
Common tern	*Sterna hirundo*	See above for Arctic tern. As both species recorded as a combined 'commic' tern group, the text for Arctic terns applies to common terns also.	Breeding	15.2 (±11.2) km for breeding season foraging range [RD330] See also Wilson et al. 2015 for modelling of foraging range	B	B P
Cormorant	*Phalacrocorax carbo*	Present all year; peak abundance in summer 21 - VP 5 - PP 2 - CB 1 - CL 140 - BB	Resident	25 (±10)km for breeding season foraging range [RD330] (For wintering range assumed residents birds forage over similar area as during breeding season.	B W P	B W
Fulmar	*Fulmarus glacialis*	Jan – Sep (but boat-based surveys only cover May – Aug).	Offshore waters likely used by birds	400 (±245.8)km for breeding season foraging range [RD330]	B P	B

Species		Seasonal occurrence and peak abundance (as determined in the different surveys)[2]	Status of species in survey area	Seasonally relevant foraging range or connectivity threshold distance ('Not required' means the species is considered to be present on passage or as a vagrant)	Periods potentially relevant to the species at Wylfa according to occurrence in surveys (breeding =B, winter= W, passage = P)	UK SPAs for breeding (B), wintering (W) or passage (P)
		9 - VP 20 - BB	from breeding colonies within foraging range and by birds on passage			
Gannet	*Morus bassanus*	Present all year; peak abundance in summer (few birds recorded during winter months) 55 - VP 100 - BB	Offshore waters likely used by birds from breeding colonies within foraging range, and by birds on passage	229.4 (±124.3)km for breeding season foraging range [RD330] See also [RD351] - analyses of space partitioning amongst gannet colonies in the UK and Ireland suggests that the development site would be within the predicted foraging areas used by Ailsa Craig and Grassholm birds	B P	B
Great black-backed gull	*Larus marinus*	Present all year 13 - VP 13 - PP 3 - CL 38 - BB 2 - CC	Resident/ passage/winter	40km for breeding season foraging range.	B W P	B

Species		Seasonal occurrence and peak abundance (as determined in the different surveys)[2]	Status of species in survey area	Seasonally relevant foraging range or connectivity threshold distance ('Not required' means the species is considered to be present on passage or as a vagrant)	Periods potentially relevant to the species at Wylfa according to occurrence in surveys (breeding =B, winter= W, passage = P)	UK SPAs for breeding (B), wintering (W) or passage (P)
Guillemot	*Uria aalge*	Present all year Note, VP count data refer to both guillemot and razorbill, but based upon boat-based data (and as typical for UK coastal waters) guillemot are the more abundant of the two species. 480 - VP 1528 - BB	Offshore waters likely used by birds from breeding colonies that are within foraging range, as well as by dispersing and wintering birds from more northern breeding colonies.	84.2 (±50.1)km for breeding season foraging range [RD330] (Winter foraging range not required – only SPA known to have wintering guillemot as a feature is the Firth of Forth and St Andrews Bay Complex pSPA, which will have no connectivity to the Wylfa site).	B W P	B W
Herring gull	*Larus argentatus*	Present all year; 210 - VP 163 - PP 37 - CB 364 - CL 177 - BB	Resident/ passage/winter	61 (±44)km for breeding season foraging range [RD330]	B W P	B

Species		Seasonal occurrence and peak abundance (as determined in the different surveys)[2]	Status of species in survey area	Seasonally relevant foraging range or connectivity threshold distance ('Not required' means the species is considered to be present on passage or as a vagrant)	Periods potentially relevant to the species at Wylfa according to occurrence in surveys (breeding =B, winter= W, passage = P)	UK SPAs for breeding (B), wintering (W) or passage (P)
		223 - CC				
Kittiwake	*Rissa tridactyla*	Present all year 43 - VP 513 - BB	Offshore waters likely used by birds from breeding colonies that are within foraging range, as well as by passage and wintering birds	60.0 (±23.3)km for breeding season foraging range [RD330]	B W P	B
Lesser black-backed gull	*Larus fuscus*	Present all year; peak abundance in summer 52 - VP 83 - PP 47 - BB 156 - CC	Resident breeding population / passage / winter	141.0 (±50.8)km for breeding season foraging range [RD330]	B W P	B
Little gull	*Hydrocoloeus minutus*	Feb; single survey record (but boat-based surveys only cover May – Aug)	Vagrant/passage	Foraging range information not available for this species but as it is relevant as a passage	P	W P

Species		Seasonal occurrence and peak abundance (as determined in the different surveys)[2]	Status of species in survey area	Seasonally relevant foraging range or connectivity threshold distance ('Not required' means the species is considered to be present on passage or as a vagrant)	Periods potentially relevant to the species at Wylfa according to occurrence in surveys (breeding =B, winter= W, passage = P)	UK SPAs for breeding (B), wintering (W) or passage (P)
		1 - VP		species this is not required.		
Manx shearwater	*Puffinus puffinus*	Apr – Sep; peak numbers Jun - Aug 182 - VP 512 - BB	Offshore waters likely used by birds from breeding colonies within foraging range.	>330km for breeding season foraging range [RD330]	B	B
Mediterranean gull	*Larus melanocephalus*	Apr – Jun; 3 survey records only (but boat-based surveys only cover May – Aug) 2 - VP 2 - CL	Vagrant/passage	20km for breeding season foraging range [RD330]	P	B
Puffin	*Fratercula arctica*	May – Aug (but boat-based surveys only cover May – Aug) 2 - VP 39 - BB	Offshore waters likely used by birds from breeding colonies within foraging range	105.4 (±46.0)km for breeding season foraging range [RD330]	B W P	B
Razorbill	*Alca torda*	Likely present all year (see above – razorbills combined	Offshore waters likely	48.5 (±35.0)km for breeding season foraging range [RD330]	B W P	B

Species		Seasonal occurrence and peak abundance (as determined in the different surveys)[2]	Status of species in survey area	Seasonally relevant foraging range or connectivity threshold distance ('Not required' means the species is considered to be present on passage or as a vagrant)	Periods potentially relevant to the species at Wylfa according to occurrence in surveys (breeding =B, winter= W, passage = P)	UK SPAs for breeding (B), wintering (W) or passage (P)
		with guillemots and recorded as 'common auks' in VP surveys) No max. count given for VP surveys, becuase the majority of' 'common auks' were likely to have been guillemots 42 - BB	used by birds from breeding colonies that are within foraging range, as well as by dispersing and wintering birds from more northern breeding colonies			
Red-throated diver	*Gavia stellata*	Sep – Jun; highest counts in winter 8 - VP 2 - CB	Passage / winter	9 km for breeding season foraging range [RD330] NRW advice for wintering birds – restrict to birds within SPA; only Liverpool Bay SPA of relevance	W P	B W
Roseate tern	*Sterna dougallii*	Jun 2 - VP	Vagrant (previous breeder at	16.6 (±11.6)km for breeding season foraging range [RD330]	B	B

Species		Seasonal occurrence and peak abundance (as determined in the different surveys)[2]	Status of species in survey area	Seasonally relevant foraging range or connectivity threshold distance ('Not required' means the species is considered to be present on passage or as a vagrant)	Periods potentially relevant to the species at Wylfa according to occurrence in surveys (breeding =B, winter= W, passage = P)	UK SPAs for breeding (B), wintering (W) or passage (P)
			site)	See also [RD365] for modelling of foraging range		
Sandwich tern	*Thalasseus sandvicensis*	Apr – Aug 1808 - VP 1564 - BB (Note, this is the peak 'population' estimate for the Block 1 and 2 survey areas, as opposed to simply the raw count data)	Breeding	49.0 (±7.1)km for breeding season foraging range [RD330] See also [RD365] for modelling of foraging range	B	B P
Shag	*Phalacrocorax aristotelis*	Present all year; peak abundance in summer 18 - VP 3 - PP 22 - BB	Resident	14.5 (±3.5)km for breeding season foraging range [RD330]	B W	B
Storm petrel	*Hydrobates pelagicus*	Not recorded during standard bird surveys but incidental record from the offshore ZOI during tern tracking in July.	Likely occasional visitor to offshore ZOI	Max. value of > 65km stated for breeding season foraging range [RD330]. A range of 200km is used for potential connectivity with SPAs for wintering populations	B	B

Table A3 Other species recorded in the surveys

Table A3 summarises other species recorded in the vantage point (September 2010 to September 2014), intertidal (April 2012 to March 2015) and boat-based transect surveys (May 2016 to May 2017), with summary information on their recorded abundance and frequency of occurrence in the survey areas.

Species		Seasonal occurrence and peak abundance (as determined in the different surveys)[4]	Status of species in survey area	Seasonally relevant foraging range or connectivity threshold distance ('Not required' means the species is considered to be present on passage or as a vagrant)	Periods potentially relevant to the species at Wylfa according to occurrence in surveys (breeding =B, winter= W, passage = P)	UK SPAs for breeding (B), wintering (W) or passage (P)
Chough	*Pyrrhocorax pyrrhocorax*	Present all year 1 – 2 pairs regularly breed on the development site. Up to 6 birds recorded during walkover surveys of the development site and its surrounds.	Resident	Most foraging in breeding season within 500m of nest site [RD359]. Birds may range more widely in non-breeding season, >80km [RD61].	B W	B W
Merlin	*Falco columbarius*	Present all year 2 - VP	Resident breeding /winter	Max. breeding season foraging range of 5km [RD255]	B W	B W
Peregrine	*Falco peregrinus*	Present all year 1 - VP	Resident breeding/winte	Core breeding season foraging range of 2km, with max. of 18km [RD255]. Therefore, a	B W	B

[4] Surveys are coded as VP – vantage point surveys; PP – surveys of Porth-y-pystill; CL – surveys of Cemlyn Lagoon; CB – surveys of Cemlyn Bay

Species		Seasonal occurrence and peak abundance (as determined in the different surveys)[4]	Status of species in survey area	Seasonally relevant foraging range or connectivity threshold distance ('Not required' means the species is considered to be present on passage or as a vagrant)	Periods potentially relevant to the species at Wylfa according to occurrence in surveys (breeding =B, winter= W, passage = P)	UK SPAs for breeding (B), wintering (W) or passage (P)
			r	range of 18km is used for potential connectivity with SPAs		
Short-eared owl	*Asio flammeus*	May; single survey record only 1 - VP	Vagrant	Max. breeding season foraging range of 5km [RD255]	P	B

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Appendix B Screening of projects and scoping of plans for inclusion in the in-combination assessment

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B1 Screening other projects for in-combination assessment

Licence Ref.	Developer	Plan or project title and description	Current status and availability of information	Spatial link to the Project	Temporal link to the Project	Screened in to or out of the assessment	Justification for screening decision	Distance to Project Site	Approximate distance to European Designated Sites	European Designated Sites and qualifying features where in combination effects have the potential to occur	Potential impact pathways
WALES (NRW)											
-	Magnox Limited	Wylfa Decommissioning Decommissioning of the Existing Power Station (Wylfa) including care and maintenance of the existing facilities followed by decommissioning and final site clearance.	The Existing Power Station ceased operation on 30 December 2015 and is currently in a defueling phase, following which, work will be undertaken into site care and maintenance. An Environmental Statement (2013 Update) for the decommissioning of the Existing Power Station has been prepared http://www.hse.gov.uk/consult/condocs/cdwylfa/2013-environmental-statement.pdf Decommissioning activities are understood to last between 2015 and 2025. Magnox are currently updating the plans for decommissioning. The Environmental Statement will not be updated but various Environmental Masterplan documents will be produced.	Yes	Yes	In	In-combination effects of the Project's construction activities and Magnox's proposed decommissioning activities are possible on the European Designated Sites screened in with respect to the Project, as there is both a spatial and temporal link between these two projects.	0km	1.5km	Morwenoliaid Ynys Môn / Anglesey Terns SPA: - Arctic tern - Common tern - Roseate tern - Sandwich tern	- Changes in visual and acoustic stimuli - Changes in marine water quality
									1.5km	Bae Cemlyn / Cemlyn Bay SAC: - Coastal lagoon	- Changes in terrestrial water quality - Changes in marine water quality
									0km	Gogledd Môn Forol / North Anglesey Marine cSAC - Harbour porpoise	- Changes in visual and acoustic stimuli - Changes in marine water quality
-	Orthios Group	Anglesey Eco Park 299MW biomass power station within the existing consented scheme, aquaculture facility, large soil-less indoor vegetable growing facility (hydroponics), home compostable food packaging facility, the CFP Centre of Excellence, research and development, and a deep water jetty for bulk import	Outline planning permission is in place. A full planning application for the development is expected to have an accompanying Environmental Statement, but this is not yet available. An application was made in August 2016 for the demolition of buildings on the site; these works commenced in October 2016.	Yes	Yes	In	In-combination effects on the screened in European Designated Sites are possible as a result of the Project's construction and operation and this proposed development.		13km	Morwenoliaid Ynys Môn / Anglesey Terns SPA: - Arctic tern - Common tern - Roseate tern - Sandwich tern	- Changes in visual and acoustic stimuli - Changes in marine water quality - Alteration of coastal processes and hydrodynamics - Physical interaction between species and Project infrastructure
									13km	Bae Cemlyn / Cemlyn Bay SAC: - Coastal lagoon - Perennial vegetation of	- Alteration of coastal processes and hydrodynamics

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										stony banks	
									0km	Gogledd Môn Forol / North Anglesey Marine cSAC - Harbour porpoise	- Changes in visual and acoustic stimuli - Changes in marine water quality - Alteration of coastal processes and hydrodynamics - Physical interaction between species and Project infrastructure
-	Conygar Stena Line Ltd	Holyhead Waterfront Redevelopment A comprehensive mixed use development on 1.2km of Holyhead waterfront at Newry Beach and Porth y Felin.	Planning permission granted in 2012. Subsequently awaiting the outcome of a 'village green' application which may prevent the development from proceeding. A Town or Village Green Public Inquiry was held in October 2016. An Environmental Statement is believed to have accompanied the Planning Application. At the time of writing the Environmental Statement was not available online.	Yes	Potential	Out	This project is identified as potentially being relevant to the in-combination assessment due to a potential effect on the Glannau Ynys Gybi / Holy Island Coast SPA. However, the Shadow HRA concludes there is no functional link to the SPA qualifying feature (chough) and o n this basis this project is screened out of the in-combination assessment.				
-	National Grid	North Wales Connection Project A new connection for new energy generation in North Wales. Potential new generation includes the proposed Wylfa Newydd Project as well as a number of renewable energy	National Grid has a preferred corridor for a new electrical connection between the Wylfa substation and the Pentir substation. Environmental information is expected to be available as National Grid progress with defining their route alignment. An Environmental Statement is not expected to be available prior to Horizon's submission of the DCO	Yes	Yes	In	In combination effects are possible on the screened in European Designated Sites as a result of the Project's construction and operation and National Grid's	0-33km (MIS)	1.5km	Morwenoliaid Ynys Môn / Anglesey Terns SPA: - Arctic tern - Common tern - Roseate tern - Sandwich tern	- Changes in visual and acoustic stimuli

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		projects.	application.				proposed construction and operation. One of the pylons within the corridor for the grid connection is within the proposed fen enhancement and creation area at Cae Canol-dydd, but not within the Corsydd Môn/Anglesey Fens SAC or the Corsydd Môn a Llyn/Anglesey and Llyn Fens Ramsar site.			Bae Cemlyn / Cemlyn Bay SAC: - Coastal lagoon Perennial vegetation of stony banks	- Changes in terrestrial quality - Changes in marine water quality - Changes in surface and groundwater hydrology - Change in air quality
-	TPG Wind Limited (a joint venture between E.ON and Eurus Energy UK Ltd)	Rhyd-y-groes Re-power The current wind Rhyd-y-groes Wind Farm, located near the northern shores of Anglesey in Wales, has 24 turbines with a maximum total power output of 6.6MW. Proposals are to replace the current turbines with up to 11 modern turbines, which could produce up to 9.9MW of renewable energy.	Planning application was granted in July 2016. The Environmental Statement is available online - https://www.eonenergy.com/About-eon/our-company/generation/planning-for-the-future/wind/onshore/rhyd-y-groes-repower/project-information The construction period for the proposed development is forecast to last 12 months and the proposed decommissioning of the existing windfarm could take up to six months. There is scope for decommissioning and construction timetables to overlap. Although construction phasing is known, a start date for construction has not been set.	Yes	Potential	In	In-combination effects are possible on the screened in European Designated Sites as a result of the Project's construction and operation and proposed construction and operation of the Rhyd-y-groes Re-power project. Horizon will continue to monitor the Rhyd-y-groes Re-power project to identify a likely start date.	33km (MIS)	5.9km	Morwenoliaid Ynys Môn / Anglesey Terns SPA: - Arctic tern - Common tern - Roseate tern - Sandwich tern	- Changes in visual and acoustic stimuli - Physical interaction between species and Project infrastructure
-	Amlwch LNG (previously Cantaxx)	Amlwch LNG (Liquified Natural Gas) Tankers would import liquid gas to a mooring 3km from	The existing planning consent was renewed in 2013, but future plans are unclear and timescales undefined. The planning application is expected to have had an accompanying Environmental	Yes	Potential	In	In combination effects are possible on the screened in European Designated Sites	10km	11.5km	Morwenoliaid Ynys Môn / Anglesey Terns SPA: - Arctic tern - Common tern	- Changes in visual and acoustic stimuli

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		the Amlwch coast. The gas would then be transferred by an undersea pipeline from the mooring platform to the site near the town of Amlwch, where it would be converted back to natural gas and sent into the UK gas network.	Statement. At the time of writing the Environmental Statement was not available online.				as a result of the Project's construction and operation and Amlwch LNG's proposed construction and operation. Horizon will continue to monitor the Amlwch LNG project to identify the likelihood of it progressing.			- Roseate tern - Sandwich tern	
									0km	Gogledd Môn Forol / North Anglesey Marine cSAC : - Harbour porpoise	- Physical interaction between species and Project infrastructure
ORML1618	Minesto	Holyhead Deep 10 MW Tidal kite installation off the coast of Holyhead, plus on-land elements and grid connection.	The Environmental Statement for this proposed project has been obtained. Minesto plans to start the installation of a 10MW marine energy array in 2017, subject to planning permission and Marine Licences. In April 2017, a Marine Licence was granted for the first 0.5MW installation. ES and HRA available: http://minesto.com/projects/holyhead-deep	Yes	Potential	In	In combination effects are possible on the screened in European Designated Sites as a result of the Project's construction and operation and Holyhead Deep's proposed construction and operation. Horizon will continue to monitor the Holyhead Deep project to identify the likelihood of it progressing.	21km (to Holyhead Deep proposed array)	0 - 3.0km	Gogledd Môn Forol / North Anglesey Marine cSAC : - Harbour porpoise	- Physical interaction between species and Project infrastructure - Changes in marine water quality - Land-take, including seabed or intertidal land
										Morwenoliaid Ynys Môn / Anglesey Terns SPA: - Arctic tern - Common tern - Roseate tern - Sandwich tern	- Changes in visual and acoustic stimuli - Land-take, including seabed or intertidal land - Changes in marine water quality - Alteration of coastal processes and hydrodynamics - Physical interaction between species and Project infrastructure
-	Menter Môn	West Anglesey Demonstration Zone Menter Môn has been awarded a long-term lease to manage an area of seabed off the west coast in order to develop the marine energy sector. Currently looking for	Marine and land planning is not currently in place nor have any applications for such consent been made and funding is understood still to be required. A Scoping report has been submitted for a tidal array and an Environmental Statement is will be required for this development.	Yes	No	In	In-combination effects are possible on the screened in European Designated Sites as a result of the Project's construction and operation and Menter Môn's	20km (to proposed array)	0 - 1.2km	Gogledd Môn Forol / North Anglesey Marine cSAC : - Harbour porpoise	- Physical interaction between species and Project infrastructure - Changes in marine water quality - Land-take, including seabed or intertidal land
									0 - 1.2km	Morwenoliaid Ynys Môn / Anglesey Terns	- Changes in visual and acoustic stimuli - Land-take, including seabed

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		developers/ technology companies.					proposed tidal array project. Horizon will continue to monitor the tidal array project to identify the likelihood of it progressing.			SPA: - Arctic tern - Common tern - Roseate tern - Sandwich tern	or intertidal land - Changes in marine water quality - Alteration of coastal processes and hydrodynamics - Physical interaction between species and Project infrastructure
15C75G/ SCR	Energy Consultants Wales	Erection of one 100kw wind turbine with a maximum hub height of up to 36m, rotor diameter of up to 24m and a maximum upright vertical tip height of up to 48m together with the construction of an access track on land near Ty'n Rallt, Bodorgan.	EIA screening opinion requested from Isle of Anglesey County Council Planning Application Ref: 15C75G/SCR Planning decision made on 27/07/2015 stating an EIA was not required.	No	Potential	Out	No spatial link and a small scale project.				
-	Welsh Gov	Third bridge across the Menai Straits.	The Welsh Government is developing this project. Meetings have been held with the Welsh Government and information has been requested. At the time of writing, a number of options are under consideration and no preferred route has been announced.	Potential	Potential	Out	On the basis of current understanding, significant in-combination effects are unlikely to occur. The bridge may affect the Y Fenai a Bae Conwy/ Menai Strait and Conway Bay SAC. The Project has the potential to affect air quality due to road traffic, but the assessment has concluded that the SAC is not sensitive to this effect.. There is no pathway for effect on coastal processes and,				

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							therefore, the habitats within the SAC would not be affected.				
-	HNP	Visitor and Media Reception Centre	A planning application is to be submitted following completion of the construction of the Wylfa Newydd Project. No environmental information is currently available.	Yes	Yes	In	Although the Visitor and Media Reception Centre will be constructed after the Project, it is screened into the in-combination assessment due to proximity to European Designated Sites.	0km	1.5km	Morwenoliaid Ynys Môn / Anglesey Terns SPA: - Arctic tern - Common tern - Roseate tern - Sandwich tern	- Changes in visual and acoustic stimuli - Changes in marine water quality
									1.5km	Bae Cemlyn / Cemlyn Bay SAC: - Coastal lagoon	- Changes in terrestrial water quality
DML1702	Ceredigion County Council	New Quay Harbour and Associated Beach	Annual harbour maintenance dredging works, involving dredging of sand to the south side of the main pier at New Quay harbour and the disposal of the dredged material for use as beach nourishment at Traeth y Dolau, within the harbour area. The sand bank is only dredged up to a maximum depth of 1 metre by means of a land based mechanical excavator and it is loaded into tractors and trailers for disposal on to another beach (Traeth y Dolau; New Quay) within the Harbour area. The works are programmed to coincide with low water to ensure that no plant need to physically enter the water, thereby minimizing	No	No	Out	Due to the scale of the project no potential effects have been identified on the Bae Ceredigion / Cardigan Bay SAC. This project has been screened out of the in-combination assessment.				

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			any potential impacts. No potential impacts have been identified on the Bae Ceredigion / Cardigan Bay SAC and this project has been scoped out of the assessment. Marine licence issued – valid until 19/03/2022								
DML1648	Stena Line Ports Ltd	Holyhead Harbour Maintenance Dredging	Limited information currently available. Marine Licences non EIA – licence issued and valid until 22/12/2019	No	Potential	Out	There is potential for this activity to impact on the Morwenoliaid Ynys Môn / Anglesey Terns SPA and Gogledd Môn Forol / North Anglesey Marine cSAC. However due to nature of maintenance dredging works as a long-standing and ongoing activity it has been screened out of the in-combination assessment.				
DML1635	Associated British Ports	Swansea Maintenance Dredging disposal	Limited information currently available. Marine Licences non EIA – licence issued and valid until 22/12/2019	No	Potential	Out	There is potential for this activity to impact on the Sir Benfro Forol / Pembrokeshire Marine SAC. However due to nature of maintenance dredging works as a long-standing and ongoing activity it has been screened out of the in-combination assessment.				
DML1630	ABP	ABP Port Talbot	Limited information currently	No	Potential	Out	No environmental				

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		Dredge and Disposal	available. Marine Licences non EIA – licence issued and valid until 22/12/2019				information is available.				
-	Greenwire Transmission	Ireland – United Kingdom electricity interconnection, which aims to deliver additional transmission capacity between Ireland and United Kingdom. The Greenwire Interconnector would connect between Great Island, Wexford County (IE) and Pembroke (UK).	Project is at the scoping stage and little information is available	Potential	Potential	Out	No environmental information is currently available.				
SC1605	Stena Line	Fishguard port linkspan replacement	Limited information available. Screening opinion – licence not yet applied for	No	Potential	Out	No environmental information is currently available.				
CML1658	Neyland Yacht Haven Ltd	Neyland Yacht Haven	Limited information currently available. Marine licences non- EIA – licence issued and valid until 20/11/2019	No	Potential	Out	No environmental information is available.				
DML1639	Swansea City Council	Swansea Marina Maintenance Dredging	Limited information currently available. Marine licences non- EIA – licence issued and valid until 03/11/2019	No	Potential	Out	There is potential for this activity to impact on the Sir Benfro Forol / Pembrokeshire Marine SAC. However due to nature of maintenance dredging works as a long-standing and ongoing activity it has been screened out of the in-combination assessment.				

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RML1629	Qinetiq	Cribach Beach - demolition and removal works	Limited information currently available. Marine Licences – Non EIA – licence issued and valid until 31/08/2018	No	Potential	Out	No environmental information is available.				
RML1657	Natural Resources Wales	Afon Dysynni outfall gravel removal and relocation.	Removal of accumulated stone river channel material via excavation and deposit of material on right river bank on the north shore. The maximum excavation depth will be to 1.5 m below the existing bed level and a maximum quantity to be removed is 6000 m³. The channel would need to be excavated back to around the position of the old training camp sewage pipe crossing. That would be approximately 150 to 200m river reach. Channel width opened to approximately 20m, at depth 1.5m. This is a non EIA project however potential impacts have been identified on the Pen Llyn a'r Sarnau / Llyn Peninsula and the Sarnau SAC. An HRA has been undertaken and is available from NRW. Marine Licences – Non EIA – licence issued and valid until 17/10/2021	No	Potential	In	There is potential for this project to affect the Pen Llyn a'r Sarnau / Llyn Peninsula and the Sarnau SAC	94km	0km	Pen Llyn a'r Sarnau/ Llyn Peninsula and the Sarnau SAC : - Bottlenose dolphin - Grey seal	- Changes in visual and acoustic stimuli - Changes in marine water quality
DML1646	Milford Haven Port Authority	Milford Haven, Maintenance Dredge Pembrokeshire	The removal of maintenance dredge material from berths and channels within the limits of Milford Haven Port Authority, Pembrokeshire. An annual tonnage of 365,000 tonnes is being applied for. The licence is valid until 08/03/2022. An HRA has been undertaken for the works and is available from NRW.	No	Yes	In	There is potential for this project to impact on the Gorllewin Cymru Forol / West Wales Marine cSAC and Sir Benfro Forol / Pembrokeshire Marine SAC.	193km	6.5km	Gorllewin Cymru Forol / West Wales Marine cSAC : - Harbour porpoise	- Changes in visual and acoustic stimuli - Changes in marine water quality
									0km	Sir Benfro Forol / Pembrokeshire Marine SAC : - Grey Seal	- Changes in visual and acoustic stimuli - Changes in marine water quality
CRML1612	Network Rail Infrastructure Ltd	Inspection and maintenance of Barmouth Viaduct	Limited information currently available. Marine Licences non EIA	No	Potential	Out	There is potential for this project to impact on the Pen Llyn a'r Sarnau/ Llyn Peninsula and the Sarnau SAC.				

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							However, given the nature of the proposed this project has been screened out of the in-combination assessment.				
CRML1561	Afon Teifi Fairways Ltd	Ceredigion	Management of Moorings & Navigation to the River Teifi. – licence issued and valid until 16/06/21	No	Potential	Out	Given the scale of the proposed works and localised nature of mooring management this project has been screened out of the in-combination assessment.				
BUML1534	Conwy County Borough Council	West shore, Llandudno	Limited information available. Wind-blown sand – licence issued and valid until 14/06/21	Unknown	Unknown	Out	Given the nature of the proposed project (apparently minor works) it has been screened out of the in-combination assessment.				
AN26	Dwr Cymru Welsh Water	Wastewater treatment upgrade to serve the Wylfa Newydd Main Site	No details of the proposed upgrade were available at the time of writing	Yes	Yes	Out	It is not currently possible to assess the potential for in-combination effects as no information is available.				
CML1619	Conwy County Borough Council	Victoria Pier	Limited information available Marine Licences – Non EIA – licence issued and valid until 08/03/21	Unknown	Unknown	Out	No environmental information is available.				
DML1554	The Cardiff Marine Group	Aberystwyth Maintenance Dredging	Limited information available. Water injection dredging – licence issued and valid until 07/03/19	No	Potential	Out	There is potential for this project to impact on the Gorllewin Cymru Forol / West Wales Marine				

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							cSAC and Bae Ceredigion / Cardigan Bay SAC. However due to nature of maintenance dredging works as a long-standing and ongoing activity it has been screened out of the in-combination assessment.				
CRML1604	Conygar Stena Line Ltd	Fishguard Marina Development	Marina Development including dredge of marina basin to provide 345 berths and dredge of a new approach channel to provide all weather, all tide access to the marina. An 8.28ha reclamation platform between the marina basin and the shore. It is currently estimated that the volume of dredging will be 487,000m^3. The material generated from the dredging works will go into the land reclamation. The extent of the reclaimed areas has been set to accommodate all the dredged material i.e. a cut and fill balance has been established, therefore eliminating the requirement for disposal at sea or the need to import material. The licence has identified that there will be no potential impacts on the designated sites however the site is immediately adjacent to the Gorllewin Cymru Forol / West Wales Marine cSAC . An ES has been produced which includes further details. Licence issued and valid until 03/06/21	No	Potential	In	There is potential for this project to impact on the Gorllewin Cymru Forol / West Wales Marine cSAC.	161km	0km	Gorllewin Cymru Forol / West Wales Marine cSAC : - Harbour porpoise	- Changes in visual and acoustic stimuli - Changes in marine water quality

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DML1533	Quay Marinas Ltd	Conwy and Deganwy Quays	Cutter suction dredging and disposal programme at Conwy and Deganwy Quays Marinas for up to 35,000 tonnes of silt and sand to be undertaken annually as part of their maintenance dredging programme. There are potential impacts of the proposed activities on the Y Fenai a Bae Conwy/Menai Strait and Conway Bay SAC and an ES has been prepared. Dredge and Disposal – licence issued and valid until 31/12/18	No	Potential	Out	There is potential for this project to impact on the Y Fenai a Bae Conwy/Menai Strait and Conway Bay SAC in combination with the Wylfa Newydd Project. However, no effect on coastal processes is predicted and the effect of the Project is assessed as not significant.				
CML1465	NWP Offshore Limited	North Hoyle Offshore Windfarm, North Wales	Application to carry out operation and maintenance activities at North Hoyle Offshore Wind Farm. This includes routine inspections and maintenance of wind turbine generators, foundations and transition pieces and cables of the already constructed windfarm. Parts, labour, plant for operations and maintenance will be delivered by sea from the Port of Mostyn to Rhyl Flats Wind Farm by crew transfer vessel, jack up barge or other. The operations are identified as potentially having an impact on the Liverpool Bay SPA. This site will not be impacted by the proposed Horizon Project and the project has been scoped out of the assessment. licence issued and valid until 31/12/2029	No	No	Out	The operations are identified as potentially having an effect on the Liverpool Bay SPA. This site would not be affected by the Project and has been screened out of the in-combination assessment				

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CML1507	Swansea University	Pembroke Dock, Pembrokeshire	The project aims to produce seaweeds as part of the Engineering and Physical Sciences Research Council (EPSRC) funded MacroBioCrude project which seeks to provide an innovative technology pipeline for the utilisation of seaweed (macroalgae). The project also aims to carry out research into the ecosystem services provided by seaweed cultivation including monitoring water quality to quantify the potential for nutrient removal and biodiversity support through habitat enrichment. The marine licence is for the installation of a pilot scale seaweed farm at sea in Pembroke Dock. Installation has already taken place and current works are ongoing monitoring and harvesting. During the application stage NRW advised that the cultivation site is outside of the Sir Benfro Forol / Pembrokeshire Marine SAC and unlikely to have an impact on it due to the project scale. Seaweed Farm Installation – licence issued and valid until 31/07/18	No	No	Out	During the application stage for this project NRW advised that the cultivation site is outside of the Sir Benfro Forol / Pembrokeshire Marine SAC and unlikely to have an effect on it due to the project scale. The project has therefore been screened out of the in combination assessment.				

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L1466	Rhyl Flats Wind Farm Limited	Rhyl Flats Windfarm, North Wales	Application for operations and maintenance activities at the Rhyl Flats windfarm. This includes routine inspections and maintenance of wind turbine generators, foundations and transition pieces and cables of the already constructed windfarm. Parts, labour, plant for operations and maintenance will be delivered by sea from the Port of Mostyn to Rhyl Flats Wind Farm by crew transfer vessel, jack up barge or other. The operations are identified as potentially having an impact on the Liverpool Bay SPA. This site will not be impacted by the proposed Horizon Project and the project has been scoped out of the assessment. Operation and Maintenance Activities – licence issued and valid until 03/06/34	No	No	Out	The operations are identified as potentially having an impact on the Liverpool Bay SPA. This site would not be impacted by the Project and has been screened out of the assessment.				
CML1754	EirGrid Interconnector DAC	Reburial of spare cable duct	The East West Interconnector is a high voltage direct current link between the Republic of Ireland and Wales. At the Welsh landfall, the cables are installed in ducts beneath the sea defence close to Prestatyn Sailing Club. The spare cable duct intermittently protrudes through the sand and presents a safety hazrd as an unexpected object on the beach. Eir Grid intends to undertake re-burial of the spare cable duct as soon as possible. The application requests a licence expiry date of 1 October 2018 and an HRA is available.	No	No	Out	The operation is identified as potentially having an impact on the Aber Afen Dyfrdwy/Dee Estuary SPA and Ramsar site. However, the works are relatively small scale and short duration and the HRA concluded no LSE alone or in-combination with other plans and projects.				
DML1743	Neyland Yacht Havens Ltd	Trickle (maintenance) dredging within Neyland Yacht Haven	Dredging and disposal of 5,500 tonnes per year of material (renewal of existing licence) The application requests a licence	No	No	Out	The proposed activity has the potential to affect the Sir Benfro Forol/Pembrokes				

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			expiry date of 28 July 2020 and an HRA is available.				hire Marine SAC. The HRA screening assessment for the dredging and disposal concluded no likely significant effect for grey seal due to the small scale nature of the disposal.				
CML1703	Stena Line	Reclamation adjacent to Terminal 4 of the Port of Holyhead	Reclamation of approximately 0.62ha of land adjacent to Terminal 4 of the Port of Holyhead for the purpose of facilitating port development. The application requests a licence expiry date of 1 June 2022 and an HRA is available.	No	No	Out	The proposed reclamation has the potential to affect the Glannau Ynys Gybi/Holy Island Coast SAC and SPA, Gogledd Môn Forol/North Anglesey Marine cSAC and Morwenoliaid Ynys Môn/Anglesey Terns SPA. However, the HRA concludes no LSE on any European Designated Site.				
CML1709	E Grylls	Seasonal mooring of floating pontoons to concrete blocks for 2 months each year	The application requests a licence expiry date of July 2027 and an HRA is available.	No	No	Out	The proposed moorings have the potential to affect the Pen Llyn a'r Sarnau/Llŷn Peninsula and the Sarnau SAC (marime mammals) and Mynydd Cilan, Trwyn y Wylfa ac Ynysoedd Sant Tudwal/Mynydd Cilan, Trwyn y Wylfa and the St.				

Licence Ref.	Developer	Plan or project title and description	Current status and availability of information	Spatial link to the Project	Temporal link to the Project	Screened in to or out of the assessment	Justification for screening decision	Distance to Project Site	Approximate distance to European Designated Sites	European Designated Sites and qualifying features where in combination effects have the potential to occur	Potential impact pathways
							Tudwal Islands SPA (chough). However, the HRA concluded no significant effect on the relevant qualifying features of these European Designated Sites.				
CML1518	Saunders foot Harbour Commissioners	Saundersfoot Pontoon construction	Limited information available. Pontoon construction – licence issued and valid until 30/06/2020	No	Potential	Out	There is potential for the project to impact on the Dynesfeydd Môr Hafren / Bristol Channel Approaches cSAC, however, given the scale of works required for pontoon construction there is unlikely to be in combination impacts with the Project.				
11/52/ML/3	Gwynt y Môr Offshore Wind Farm Ltd	Gwynt y Môr Offshore Wind Farm	Limited information available. Operations and Maintenance – licence issued and valid until 08/02/40	Potential	Potential	In	There is potential for this project to impact on the Morwenoliaid Ynys Môn / Anglesey Terns SPA and Gogledd Môn Forol / North Anglesey Marine cSAC.	53km	35km	Gogledd Môn Forol / North Anglesey Marine cSAC : - Harbour porpoise	- Changes in visual and acoustic stimuli - Changes in marine water quality
ENGLAND (MARINE MANAGEMENT ORGANISATION)											
EIA/2016/00052	Environment Agency	East Lytham Flood Alleviation scheme	Environmental impact assessment - Construction, Deposits, Dredging. A screening opinion provided by the MMO has stated that an EIA is not required for this project. Natural England has provided a comfort letter dated 21/01/2017 which states that they believe that	No	Potential	Out	The information available for these proposed works states that there will be no LSE on the Ribble and Alt Estuaries SPA. Given this, the				

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			there will be no LSE on the Ribble and Alt Estuaries sites from these works.				project has been screened out of the in combination assessment.				
MLA/2016/00149	Barrow Offshore Wind Farm Ltd	Barrow Offshore Wind Farm O&M Marine Licence	Application - Maintenance of existing works required for the operational life of the constructed windfarm. An Environmental Statement is available on the MMO public register. The Environmental Assessment concludes a negligible impact on Liverpool Bay, Liverpool Bay extension and Morecambe and Duddon Estuary SPA alone and in combination with other windfarm O&M in the area.	No	Yes	Out	The information available for these proposed works states that there will be no LSE on the Morecambe and Duddon Estuary SPA alone and in combination with other windfarm O&M in the area. Given this the project has been screened out of the in combination assessment.				
MLA/2016/00150	Ørsted West of Duddon Sands (UK) Limited	West of Duddon Sands Offshore Wind Farm O&M Marine Licence	Application - Maintenance of existing works required for the operational life of the constructed windfarm. An Environmental Statement is available on the MMO public register. The Environmental Assessment concludes a negligible impact on Liverpool Bay, Liverpool Bay extension and Morecambe and Duddon Estuary SPA alone and in combination with other windfarm O&M in the area.	No	Yes	Out	The information available for these proposed works states that there will be no LSE on the Morecambe and Duddon Estuary SPA alone and in combination with other windfarm O&M in the area. Given this the project has been screened out of the in combination assessment.				
MLA/2015/00077	TC BARROW OFTO LIMITED	Barrow Offshore Wind Farm (OWF) Export Cable Repair and Remediation	A marine licence has been granted for remedial cable repairs, the licence is valid until 2030. A supporting Environmental Report is available on the MMO public register:	No	Potential	Out	This project is identified as potentially being relevant to the in combination assessment due				

Licence Ref.	Developer	Plan or project title and description	Current status and availability of information	Spatial link to the Project	Temporal link to the Project	Screened in to or out of the assessment	Justification for screening decision	Distance to Project Site	Approximate distance to European Designated Sites	European Designated Sites and qualifying features where in combination effects have the potential to occur	Potential impact pathways
			https://marinelicensing.marinemanagement.org.uk/mmofox5/fox/live/				to a potential effect on the Morecambe Bay SPA. However, given the very small percentage of the SPA population that potentially could be affected (identified by the apportionment exercise) there is no realistic pathway for significant in-combination effects. This project is therefore screened out of the in combination assessment.				
MLA/2015/00086	Tc Ormonde Ofto Limited	Ormonde Offshore Wind Farm (OWF) Export Cable Repair and Remediation	A marine licence has been granted for maintenance of existing works for the Ormonde offshore windfarm export cable. The licence is valid until 2030. A supporting Environmental Report is available on the MMO public register: https://marinelicensing.marinemanagement.org.uk/mmofox5/fox/live/	No	Potential	Out	The Environmental Report states that future cable remediation/repair events are unlikely to be required in the parts of the cable that overlap the Morecambe Bay SPA and Ramsar site, no LSE on SPA bird populations is predicted. Given this the project has been screened out of the in combination assessment.				
EIA/2015/00005	Fylde Council	Fairhaven Lake and Church Scar Coastal	The proposed scheme is located at two discrete, but adjacent,	No	Potential	Out	The potential exists for the				

Licence Ref.	Developer	Plan or project title and description	Current status and availability of information	Spatial link to the Project	Temporal link to the Project	Screened in to or out of the assessment	Justification for screening decision	Distance to Project Site	Approximate distance to European Designated Sites	European Designated Sites and qualifying features where in combination effects have the potential to occur	Potential impact pathways
		Defence Scheme	locations; Fairhaven Lake and Church Scar, on the north bank of the Ribble estuary at Lytham St Annes, Lancashire NGR 333580, 427300 to 335710, 426870. A screening opinion has been submitted to the MMO and the project will require an EIA. The MMO Screening Opinion States that there will be a temporary disturbance (visual, noise, vibration) to bird populations during construction, in particular overwintering species designated as part of the adjacent Ribble and Alt Estuaries SPA. https://marinelicensing.marinemanagement.org.uk/mmofox5/fox/live/				timing of construction of the coastal defence scheme to overlap with the Project construction. However, given the only pathway for effect of the Project on the waterbird populations of the Ribble and Alt Estuaries SPA is through a change in marine water quality, no significant in-combination effect is likely and this project has been screened out.				
MLA/2016/00342/1		Walney Extension Offshore Wind Farm Operations and Maintenance (O&M) Facilities	Marine licence has been granted for the maintenance of facilities for the operational life of the offshore windfarm. A HRA is available for this project on the MMO public register. The HRA states that there is no potential LSE of the works on the Morecambe Bay SPA or Duddon Estuary SPA and Ramsar site.	No	Potential	Out	The HRA for this project concludes that there will be no LSE on the Morecambe Bay or Duddon Estuary SPA and Ramsar sites. This project has been screened out of further assessment.				

Licence Ref.	Developer	Plan or project title and description	Current status and availability of information	Spatial link to the Project	Temporal link to the Project	Screened in to or out of the assessment	Justification for screening decision	Distance to Project Site	Approximate distance to European Designated Sites	European Designated Sites and qualifying features where in combination effects have the potential to occur	Potential impact pathways
EIA/2015/00037	EA	This project is to refurbish the remaining section of flood embankment at Hesketh Out Marsh (approximately 2km) and breach the outer embankment to allow land in-between to revert back to intertidal habitat. The project will be delivered in partnership with RSPB and Natural England.	An EIA has been undertaken for the scheme. The current stage of the works is unknown. Details are on the MMO Public Register: https://marinelicensing.marinemanagement.org.uk/mmofox5/fox/live/ ES submitted to the MMO who has approved the content.	No	Yes	Out	This project is identified as potentially being relevant to the in combination assessment due to a potential effect on the Ribble and Alt Estuaries SPA. However, given the very small percentage of the SPA population that potentially could be affected (identified by the apportionment exercise) there is no realistic pathway for significant in-combination effects. This project is therefore screened out of the in combination assessment.				
EIA/2015/00031	Burbo Bank	Burbo Bank Extension O&M facility Kings Wharf. Proposal to develop an operations and maintenance base for the Burbo Bank OWF extension. The Proposed Development will comprise onshore land-based development (small warehouse, office and car park).	An EIA screening opinion has been provided by the MMO and the MMO has confirmed that an EIA is not required for this project. The screening includes a shadow HRA for the proposed development. Project timeframes are currently unknown. A shadow HRA for the Burbo Bank proposed development shows that birds from the Mersey Narrows and North Wirral Foreshore SPA do not readily use the project area.	No	Potential	Out	There is potential for a construction programme overlap with the Project; however, a shadow HRA for the Burbo Bank project shows that birds from the Mersey Narrows and North Wirral Foreshore SPA do not readily use the project area and that there would be no LSE on the site.				

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MLA/2017/00332	Peel Ports Ltd	Heysham North Quay Wall emergency stabilisation	A marine licence for the emergency works was granted in October 2017. The works were due to be completed within 2017.	No	No	Out	The emergency works are located approximately 200m from the Morecambe Bay and Duddon Estuary SPA and Morecambe Bay Ramsar site, but the SPA is separated from the works by the northern arm of the port at Heysham. The HRA concluded no LSE.				
MLA/2017/00160	Dong Energy Walney Extension (UK) Ltd	Installation of Spud-leg Pontoon for use by Crew Transfer Vessels (CTVs) for the Walney Extension Offshore Windfarm construction phase	A marine licence was granted in July 2017.	No	No	Out	The project is within the Morecambe Bay and Duddon Estuary SPA and Morecambe Bay Ramsar site. There is potential for a temporary loss in habitat but this would be very small scale. The pontoon would not be located in the intertidal areas used by the species for which the SPA and Ramsar site are designated				
-	Horizon Nuclear Power	Oldbury Construction, operation and decommissioning of a new nuclear power station using UK ABWR technology.	Early site investigations but no set programme for development of the site.	No	Potential	Out	The development of the Oldbury site is in the very early stages and as such has been screened out.				

Licence Ref.	Developer	Plan or project title and description	Current status and availability of information	Spatial link to the Project	Temporal link to the Project	Screened in to or out of the assessment	Justification for screening decision	Distance to Project Site	Approximate distance to European Designated Sites	European Designated Sites and qualifying features where in combination effects have the potential to occur	Potential impact pathways
SCOTLAND (MARINE SCOTLAND)											
-	Argyll Tidal Ltd	Argyll Tidal Demonstration Array – Mull of Kintyre, Argyll & Bute. Proposal to build a single 500kW demonstration device Argyll Tidal Array – deployment of up to 6 of the 500kW devices.	Environmental Appraisal Report submitted with the marine licence application for the Argyll Tidal Demonstration Array. Documents can be found here: http://www.gov.scot/Topics/marine/Licensing/marine/scoping/ArgyllTidalArray Marine licence secured in 2015, status of works unknown. Scoping Report and Scoping Opinion available for the Argyll Tidal Array.	No	Yes	Out	This project is identified as potentially being relevant to the in combination assessment due to a potential effect on the Ailsa Craig SPA. However, given the very small percentage of the SPA population that potentially could be affected (identified by the apportionment exercise) there is no realistic pathway for significant in-combination effects. This project is therefore screened out of the in-combination assessment.				
-	Scottish Power Renewables (UK) Ltd	Sound of Islay – West Coast of Scotland. Scottish Power Renewables has received consent to develop a Demonstration Tidal Array in the Sound of Islay, between the islands of Islay and Jura on the west coast of Scotland. The tidal array will consist of ten tidal stream generating devices that will be	Environmental Assessment available this includes an Appropriate Assessment of potential impacts on European designated sites. http://www.gov.scot/Topics/marine/Licensing/marine/scoping/SoundofIslay Consented – construction programme not known	No	Yes	Out	The Appropriate Assessment for the proposed tidal array concluded that there was no LSE on any of the SPAs screened into the assessment. Given this, the project has been screened out of further assessment.				

Licence Ref.	Developer	Plan or project title and description	Current status and availability of information	Spatial link to the Project	Temporal link to the Project	Screened in to or out of the assessment	Justification for screening decision	Distance to Project Site	Approximate distance to European Designated Sites	European Designated Sites and qualifying features where in combination effects have the potential to occur	Potential impact pathways
		fully submerged on the seabed just south of Port Askaig.									
IRELAND (Department of Housing, Planning, Community and Local Government)											
-	Dublin Port Company	Alexandra Basin Redevelopment Project. Extension of infrastructure to open up Dublin Port to larger cruise and cargo ships. The port will dredge the river Liffey to increase the depth of its berths and the entrance channel from 7m to at least 10m. This will eliminate access issues caused by tides and enable large cruise and cargo ships to turn in Alexandra Basin and dock at East Link Bridge, rather than reversing up the Liffey to their berth as they do now.	The project has consent and construction was due to start in November 2016. The Environmental Impact Statement is available online – http://dublinportabr.ie/eis	Yes	Yes	In	In-combination effects are possible on Lambay Island SAC as a result of the Wylfa Newydd Project's construction and operation and Alexandra Basin Redevelopment's proposed construction and operation.	115km	19.0km	Lambay Island SAC: - Grey seal	- Changes in visual and acoustic stimuli - Changes in marine water quality - Alteration of coastal processes and hydrodynamics - Physical interaction between species and Project infrastructure
-	Dun Laoghaire Harbour Company (Ireland)	Proposed New Cruise Berth For Large Cruise Ships at Dun Laoghaire Harbour Dun Laoghaire Harbour Company is seeking permission for an €18m cruise berth facility to cater for jumbo cruise ships.	Planning application submitted. The accompanying Environmental Impact Statement was not obtained at the time of writing. The expected construction duration is 15 to 18 months. Although construction phasing is known the scheduled start date is unknown. Planning permission was granted in November 2016. Strategic Environmental Assessment statements are available online – http://dlharbour.ie/masterplan/sea-statement/	Yes	Yes	In	In-combination effects are possible on Lambay Island SAC as a result of the Wylfa Newydd Project's construction and operation and Dun Laoghaire Harbour's proposed construction and operation.	115km	21.8km	Lambay Island SAC: - Grey seal	- Changes in visual and acoustic stimuli - Changes in marine water quality - Alteration of coastal processes and hydrodynamics - Physical interaction between species and Project infrastructure

Licence Ref.	Developer	Plan or project title and description	Current status and availability of information	Spatial link to the Project	Temporal link to the Project	Screened in to or out of the assessment	Justification for screening decision	Distance to Project Site	Approximate distance to European Designated Sites	European Designated Sites and qualifying features where in combination effects have the potential to occur	Potential impact pathways
RI04	Fred Olsen Renewables and Hazel Shore	Codling Wind Park	https://codlingwindpark.ie/ Information from the website: Codling Bank Wind Park owned by Fred. Olsen Renewables and Hazel Shore, is a consented 220 turbine offshore wind farm. A second phase has been submitted for planning for a further 200 turbines.	Potential	Potential	Out	Timeframes for this project are unclear and it appears to have stalled. No documents have been made available since 2013.				
NORTHERN IRELAND (Department of Agriculture, Environment and Rural Affairs)											
-	Islandmage Co. Antrim	Construction of an intake/outlet pipe.	Application submitted awaiting a decision. Project information available on request from NI Dept of Agriculture, Environment and Rural Affairs https://www.daera-ni.gov.uk/articles/marine-licensing-public-register	No	Yes	Out	Due to nature of the proposed works there are unlikely to be any effects on populations of harbour porpoise within the North Channel cSAC				
-	Strangford Lough Co. Down	Decommissioning of marine current turbine	Application submitted awaiting a decision. Project information available on request from NI Dept of Agriculture, Environment and Rural Affairs https://www.daera-ni.gov.uk/articles/marine-licensing-public-register	No	Yes	In	This project has the potential to affect the Strangford Lough SAC. There is potential for in-combination effects if the construction of the Project is undertaken at the same time. Given this, the project has been screened in for further assessment.	125km	0km	Strangford Lough SAC: - Harbour seal	- Changes in visual and acoustic stimuli
ML 164/15		Newcastle Harbour Co. Down – relocation of sandbar from harbour entrance.	Licence issued (expires 28-02-2019) Project information available on request from NI Dept of Agriculture, Environment and Rural Affairs https://www.daera-ni.gov.uk/articles/marine-licensing-public-register	No	Potential	In	There is potential for in-combination effects on the Murlough SAC Harbour seal population if work on the projects is undertaken at the same time. Given this, the	127km	0km	Murlough SAC: - Harbour seal	- Changes in visual and acoustic stimuli - Changes in marine water quality - Alteration of coastal processes and hydrodynamics

Licence Ref.	Developer	Plan or project title and description	Current status and availability of information	Spatial link to the Project	Temporal link to the Project	Screened in to or out of the assessment	Justification for screening decision	Distance to Project Site	Approximate distance to European Designated Sites	European Designated Sites and qualifying features where in combination effects have the potential to occur	Potential impact pathways
							project has been screened in for further assessment.				
ML 122/15	Belfast Harbour Estate	D3 terminal cruise ship facility.	Application submitted awaiting a decision. Project information available on request from NI Dept of Agriculture, Environment and Rural Affairs https://www.daera-ni.gov.uk/articles/marine-licensing-public-register	No	Potential	In	There is potential for in-combination effects on the North Channel cSAC harbour porpoise population if work on the projects is undertaken at the same time as the Wylfa Newydd Project. Given this, the project has been screened in for further assessment.	163km	17.3km	North Channel cSAC: - Harbour porpoise	- Changes in visual and acoustic stimuli - Changes in marine water quality - Alteration of coastal processes and hydrodynamics - Physical interaction between species and Project infrastructure
ML 150/16	Belfast Harbour Estate	Disposal of dredge material from the D3 approach channel.	Application submitted awaiting a decision. Project information available on request from NI Dept of Agriculture, Environment and Rural Affairs https://www.daera-ni.gov.uk/articles/marine-licensing-public-register	No	Potential	In	There is potential for in-combination effects on the North Channel cSAC harbour porpoise population if work on the projects is undertaken at the same time as the Wylfa Newydd Project.	163km	7.8km	North Channel cSAC: - Harbour porpoise	- Changes in visual and acoustic stimuli - Changes in marine water quality

B2 Scoping other plans for in-combination assessment[5]

Ref. No.	Owner	Plan or Programme title	Current status and availability of information	Scoped in to or out of the assessment	Justification for Scoping
PP01	Welsh Government	People, Places, Futures: The Wales Spatial Plan (updated) 2008, Adopted 2004	Current national plan owned by the Welsh Government. The plan is available online via: http://gov.wales/topics/planning/development-plans/wales-spatial-plan/?lang=en	In	The Wales Spatial Plan aims to deliver sustainable development through its area strategies in the context of the Welsh Governments Sustainable Development Scheme. They provide an important regional context for service delivery and land use and inform local development plans. Given its role in development planning and the potential for effects on European Designated Sites in Wales, this plan has been scoped into the assessment.
PP02	Wales Tourist Board	'Catching the Wave' – A watersports tourism strategy for Wales 2004-2010	Current strategy owned by the Wales Tourist Board. The strategy is available online via: http://www.tourisminsights.info/ONLINEPUB/SPORT%20AND%20EVENTS/SAET%20PDFS/watersports_tourism_strategy_eng.pdf	Out	The promotion of watersports within Wales has the potential to increase recreational activity within and around environmentally sensitive areas. There is potential for impacts on coastal and marine European designated sites in Wales. However, the plan makes no reference to specific European Designated Sites and does not contain any environmental information; which implies that the environmental consequences of the plan are not considered to be significant. In addition, the plan is dated August 2004 and, in the absence of specific recent information, it is not possible to assess potential in-combination effects. This plan has been scoped out of the assessment.
PP03	Welsh Government	Minerals Planning Policy Wales 2001	Current Welsh Government national planning policy. The policy is available online via: http://gov.wales/topics/planning/policy/minerals/?lang=en	Out	Land use planning policies for minerals development cover the short and long term future use and safeguarding of mineral deposits. The planning policy does not relate to marine aggregates. The Minerals Planning Policy makes reference to the fact that activities potentially affecting European Designated Sites will require careful examination, The Policy does not, however, make reference to specific locations or activities and on this basis it is not possible to undertake assessment of potential in-combination effects. This plan has been scoped out of the assessment.
PP04	Natural Resources Wales	River Basin Management Plan: Western Wales River Basin District	Current national plan owned by Natural Resources Wales. The plan is available online via: https://naturalresources.wales/media/674895/ww-rbmp.pdf	Out	This plan focuses on the protection, improvement and sustainable use of the water environment. River basin management is the approach the Environment Agency is using to ensure the improvement needed in the Western Wales River Basin District. There is potential for this plan to have an effect on European Designated Sites in West Wales. However, HRA of the plan was carried out by the Environment Agency in consultation with NRW

[5] For Screening see chapter 5, table 5-5

Ref. No.	Owner	Plan or Programme title	Current status and availability of information	Scoped in to or out of the assessment	Justification for Scoping
					(CCW). The HRA concluded that the River Basin Management Plan is unlikely to have a significant effect on any European Designated Sites. The Plan itself does not require and further assessment under the Habitats Regulations. It acknowledges that before any measures are implemented they must be subject to the requirements of the Habitats Regulations. In light of the above conclusion, and in the absence of further assessment of specific measures set out in the Plan, no further in-combination assessment can be undertaken. This plan has been scoped out of the assessment.
PP05	Dŵr Cymru (Welsh Water)	Dŵr Cymru Welsh Water Draft Water Resources Management Plan 2013	Current management plan owned by Dŵr Cymru. The plan is available online via: http://www.dwrcymru.com/en/Environment/Water-Resources/Water-Resource-Management-Plan.aspx	In	Dŵr Cymru Welsh Water produces an updated Water Resources Management Plan (WRMP) every five years which demonstrates how it will balance water supply and demand over the next 25 year period. Water abstraction has the potential to impact on European Designated Sites within Wales. HRA of the Plan has been undertaken (Dŵr Cymru, 2013) and this identifies a potential pathway for an effect on a number of European Designated Sites that have the potential to be affected by the Wylfa Newydd Project. This plan has been scoped into the assessment.
PP06	Gwynedd County Council	Gwynedd Structure Plan – Minerals, 1993	This plan is superseded by the Anglesey and Gwynedd Joint Local Development Plan 2013 – 2028 (PP07).	Out	This plan is superseded by the Anglesey and Gwynedd Joint Local Development Plan 2013 – 2028 (PP07).
PP07	The Isle of Anglesey County Council and Gwynedd County Council	Anglesey and Gwynedd Joint Local Development Plan 2013 – 2028	Current Anglesey and Gwynedd Joint Local Development Plan (LDP). The plan is available online via: http://www.anglesey.gov.uk/planning-and-waste/planning-policy/joint-local-development-plan-anglesey-and-gwynedd/ An HRA Screening report has been prepared for the LDP: http://www.anglesey.gov.uk/Journals/2013/05/15/n/x/k/Habitats-Regulation-Assessment-Screening-Report.pdf	In	On the 28th July 2017 Gwynedd Council decided to adopt the Anglesey and Gwynedd Joint LDP. A final version of the Joint LDP has not yet been published and, in the interim, the Council prepared a composite version of the Adopted Joint LDP which incorporates recommendations made by the Inspector as a result of the Independent Examination of the LDP. The LDP focuses on economic development and planning within the region. The policies set out have the potential to impact on European Designated Sites. This plan has been scoped into the assessment.
PP08	Welsh Government	The Wales Transport Strategy 2008	Current transport plan owned by the Welsh Government. The plan is available online via: http://gov.wales/docs/det/publications/140909-transport-strategy-en.pdf	Out	The Transport Strategy relates to all transport across Wales and has the potential to impact on European Designated Sites within Wales. The Strategy identifies 'Regional Transport Consortia' and six Spatial Plan Regions across Wales. The Strategy states that national and regional transport plans will undergo Strategic Environmental Assessment and an assessment of effects on Natura 2000 sites. However, the purpose of the Strategy is not to identify specific proposals

Ref. No.	Owner	Plan or Programme title	Current status and availability of information	Scoped in to or out of the assessment	Justification for Scoping
					and does not contain any environmental assessment. On this basis, it is not possible to include the Strategy in the in-combination assessment and it is scoped out of the assessment.
PP09	Conwy Borough County Council, Denbighshire County Council, Flintshire County Council, Gwynedd County Council, the Isle of Anglesey County Council and Wrexham County Council	North Wales Joint Local Transport Plan 2015 – 2020	Current North Wales Joint Local Transport Plan available online http://www.flintshire.gov.uk/en/PDFFiles/Planning/LDP-evidence-base/Local/North-Wales-Joint-Local-Transport-Plan-2015.pdf	In	The North Wales Joint Local Transport Plan relates to all transport across north Wales and has the potential to impact on European Designated Sites within north Wales. This plan has been scoped into the assessment.
PP10	The Isle of Anglesey County Council	The Ynys Môn (Anglesey) Local Plan, 1996	This plan is superseded by the Anglesey and Gwynedd Joint Local Development Plan 2013 – 2028 (PP07).	Out	This plan is superseded by the Anglesey and Gwynedd Joint Local Development Plan 2013 – 2028 (PP07).
PP11	Magnox Limited	Wylfa Environmental Report 2010 Wylfa Sustainable Development Report 2012 Wylfa Environmental Management Plan 2013 Wylfa Site Strategic Environmental Assessment 2014	All available online via: https://magnoxsites.com	Out	These plans relate to the environmental management, environmental reporting and sustainable development of the existing Wylfa power station and how management meets the targets of the Site Improvement Plan. The Wylfa Site Strategic Environmental Assessment plan assesses the environmental baseline for the Wylfa power station and predicted changes following decommissioning. These are historic plans and assessments and, for the purposes of the in-combination assessment, are superseded by the EIA undertaken for the decommissioning of the existing Wylfa power station, which is assessed as part of the in-combination assessment of projects (Wylfa Decommissioning).
PP12	The Isle of Anglesey County Council	Interim Housing Policy 2011	This plan is superseded by the Anglesey and Gwynedd Joint Local Development Plan 2013 – 2028 (PP07).	Out	This plan is superseded by the Anglesey and Gwynedd Joint Local Development Plan 2013 – 2028 (PP07).
PP13	The Isle of Anglesey County Council	West of Wales Shoreline Management Plan 2 (SMP2)	A summary of the implications of the SMP2 policies for the Cardigan Bay and Ynys Enlli to the Great Orme Coastal Group is available online via: https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&uact=8&ved=0ahUKEwi51Lfz_czNAhXJRiYKHYC3CpwQFggcMAA&url=http%3A%2F%2Fwww.westofwalessmp.org%2Fobjview.asp%3Fobject_id%3D925%26&usg=AFQjCNGaum_2AdqdGM1AFKi5098Hvp6pyQ&sig2=sxc8BQAeh5aWBZTDIACPrQ	In	The SMP2 has the potential to affect European Designated Sites screened into the HRA for the Wylfa Newydd Project. This plan has been scoped into the assessment.
PP14	The Isle of Anglesey County Council	Flood Risk Management Strategy 2013	The Isle of Anglesey County Council's current Flood Risk Management Strategy available online via: http://www.anglesey.gov.uk/Journals/2013/07/30/a/x/l/flooding-strategy.pdf	Out	The Flood Risk Management Strategy ties in with the wider SMP2 (PP13). The Strategy does not identify specific measures that allow detailed in-combination assessment to be undertaken, but notes that the Strategy has been subject to HRA and has concluded no LSE on European Designated Sites. The Strategy is therefore scoped out of this

Ref. No.	Owner	Plan or Programme title	Current status and availability of information	Scoped in to or out of the assessment	Justification for Scoping
					assessment (the policies relating to flood and coastal erosion risk management identified in the SMP2 are assessed (PP13)).
PP15	The Isle of Anglesey County Council	Increasing the Economic Benefit of the Mon-Menai Coast: An Action Plan (2007)	The Action Plan is owned by the Isle of Anglesey County Council, Executive Summary available online via: http://www.anglesey.gov.uk/Journals/2013/07/31/x/p/b/mon-menai-coast-action-plan.pdf	Out	This plan was put in place to develop proposals to make best use of the spectacular Anglesey coastline (in terms of both onshore and offshore activities), in order to maximise economic benefit. The plan sets out potential areas where funding could be sought primarily to develop schemes to attract tourists to the area. The aim of report was not to undertake environmental assessment of any measures identified by the Action Plan, and it recognises that Environmental Impact Assessment would be required for some of the measures proposed. This plan has been scoped out of the assessment.
PP16	The Isle of Anglesey County Council	The Isle of Anglesey Area of Outstanding Natural Beauty (AONB) Management Plan Review 2015 – 2020	Current management plan for the AONB, available online via: http://www.anglesey.gov.uk/Journals/w/x/m/Anglesey-AONB-Management-Plan-2015_20.pdf	Out	The management plan for the AONB does not identify specific proposal or undertake HRA and, therefore, it cannot be assessed within the in-combination assessment. Policy NE1.2 does, however, make reference to maintaining, restoring and enhancing priority habitats and biodiversity, including European Designated Sites. This plan has been scoped out of the assessment.

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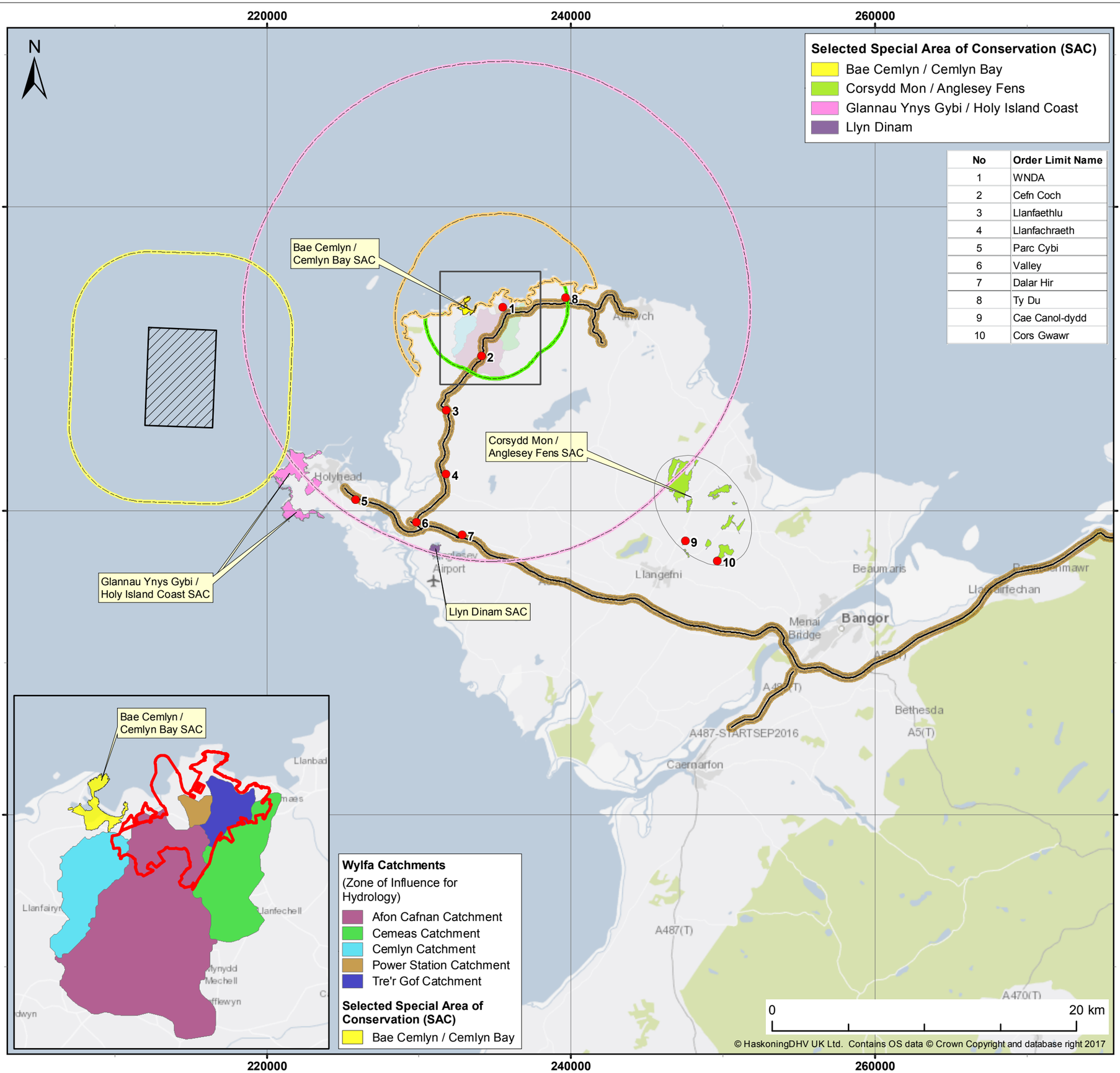
Appendix C Results of Screening for SACs and cSACs

Figure 1 SACs screened into the assessment for Annex I habitats
Figure 2 SACs screened into the assessment for migratory fish
Figure 3 SACs screened into the assessment for harbour porpoise
Figure 4 SACs screened into the assessment for bottlenose dolphin
Figure 5 SACs screened into the assessment for grey seal
Figure 6 SACs screened into the assessment for harbour seal

Table C1 Qualifying features of SACs and cSACs considered in the Stage 1 Screening exercise, with those features for which the potential for LSE has been determined (and therefore requiring Stage 2 assessment) identified in bold text. Only the qualifying features identified in bold text are carried into the screening matrices presented in **appendix F**.

Table C1 provides the distance from the European Designated Site boundary to the closest point of the Project boundary.

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No	Order Limit Name
1	WNDA
2	Cefn Coch
3	Llanfaethlu
4	Llanfachraeth
5	Parc Cybi
6	Valley
7	Dalar Hir
8	Ty Du
9	Cae Canol-dydd
10	Cors Gwawr



Legend

- Order Limits for the purposes of DCO (Refer to figure 2-1 in chapter 2 for details)
- Disposal Site
- Potential zone of influence for marine water quality (WNDA site)
- Potential zone of influence for marine water quality (Disposal Site)
- Potential zone of influence for air quality (combustion plant)
- Potential zone of influence for hydrogeology (WNDA site)
- Affected road network
- Potential zone of influence for air quality (affected road network)

Client: HORIZON NUCLEAR POWER

Project: Wylfa Newydd Project

Title: SACs screened into the assessment for Annex I habitats (pursuant to Regulation 5(2)(g))

Figure: 1

Revision:	Date:	Drawn:	Checked:	Size:	Scale:
4	03/01/2018	TC	MS	A3	1:250,000
3	24/08/2017	TC	MS	A3	1:250,000

Co-ordinate system: British National Grid

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No	Order Limit Name
1	WNDA
2	Cefn Coch
3	Llanfaethlu
4	Llanfachraeth
5	Parc Cybi
6	Valley
7	Dalar Hir
8	Ty Du
9	Cae Canol-dydd
10	Cors Gwawr

200000 300000 400000

Afon Gwyrfai a Llyn Cwellyn SAC

River Dee and Bala Lake / Afon Dyfrdwy a Llyn Tegid SAC

Afon Eden - Cors Goch Trawsfynydd SAC

Afon Teifi / River Teifi SAC

0 50 km



Legend

- Order Limits for the purposes of DCO (Refer to figure 2-1 in chapter 2 for details)
- Disposal Site

Special Area of Conservation (SAC)

- Afon Eden - Cors Goch Trawsfynydd
- Afon Gwyrfai a Llyn Cwellyn
- Afon Teifi / River Teifi
- River Dee and Bala Lake / Afon Dyfrdwy a Llyn

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Client: HORIZON NUCLEAR POWER

Project: Wylfa Newydd Project

Title: SACs screened into the assessment for migratory fish (pursuant to Regulation 5(2)(g))

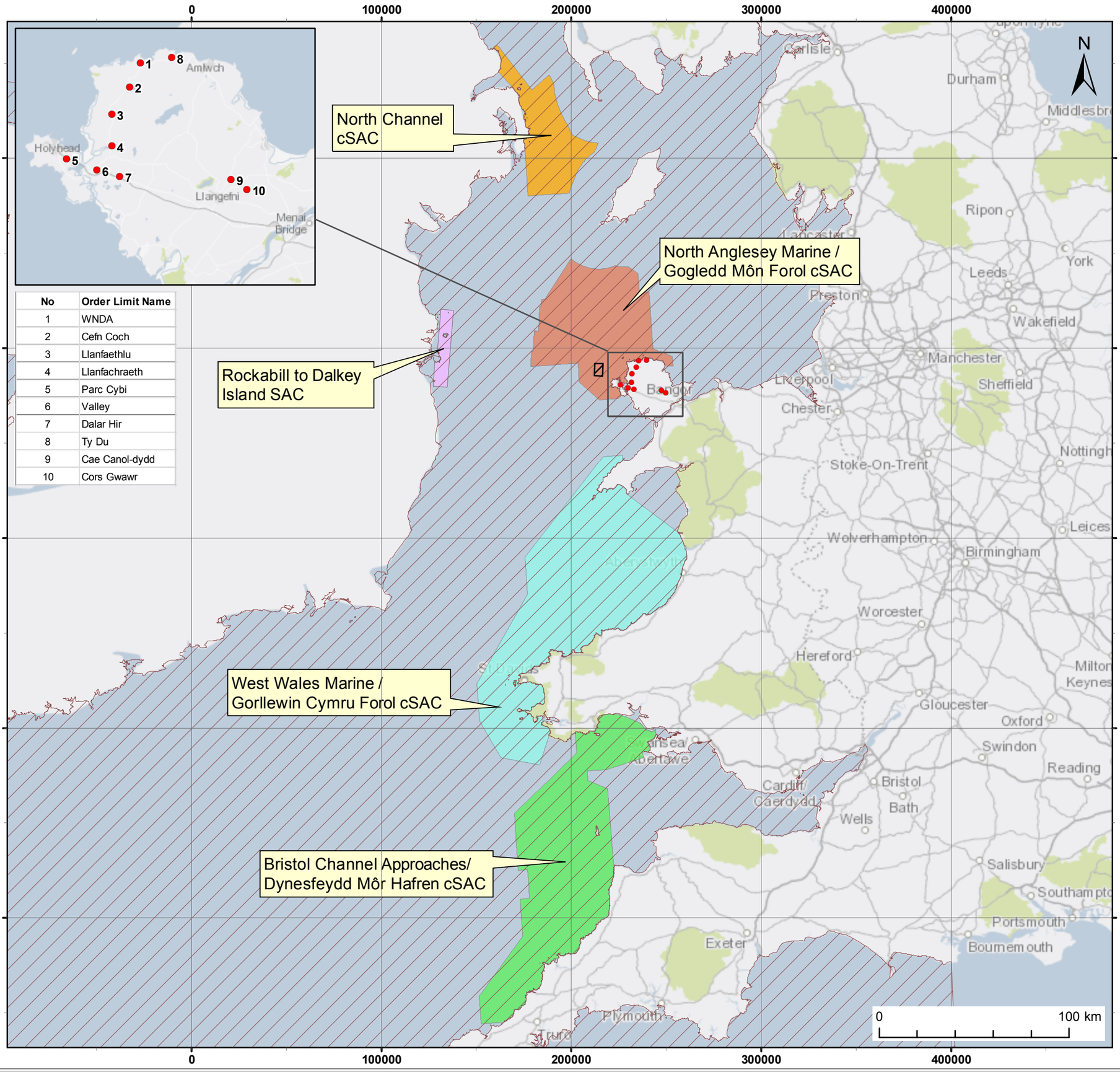
Figure: 2

Revision:	Date:	Drawn:	Checked:	Size:	Scale:
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1	25/07/2017	TC	MS	A3	1:650,000

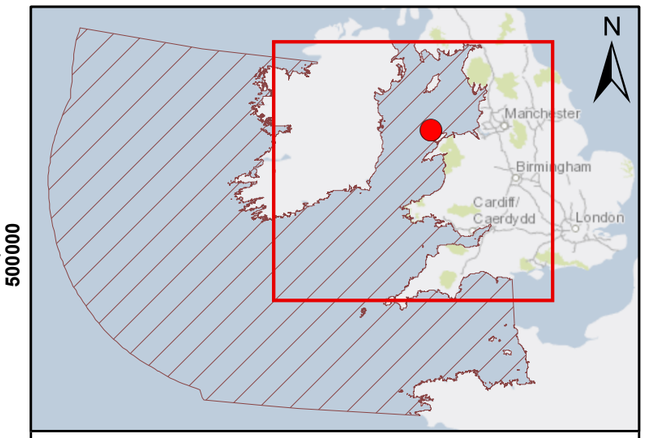
Co-ordinate system: British National Grid

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No	Order Limit Name
1	WNDA
2	Cefn Coch
3	Llanfaethlu
4	Llanfachraeth
5	Parc Cybi
6	Valley
7	Dalar Hir
8	Ty Du
9	Cae Canol-dydd
10	Cors Gwawr



Legend

- Order Limits for the purposes of DCO (Refer to figure 2-1 in chapter 2 for details)
- Disposal Site
- Celtic and Irish Seas Marine Mammal Management Unit

Special Area of Conservation (SAC)

- Rockabill to Dalkey Island (SAC)

Candidate Special Area of Conservation (cSAC)

- North Channel
- North Anglesey Marine / Gogledd Môn Forol
- West Wales Marine / Gorllewin Cymru Forol
- Bristol Channel Approaches/ Dynesfeydd Môr Hafren

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Client: HORIZON NUCLEAR POWER

Project: Wylfa Newydd Project

Title: SACs and cSACs screened into the assessment for harbour porpoise (pursuant to Regulation 5(2)(g))

Figure: 3

Revision:	Date:	Drawn:	Checked:	Size:	Scale:
3	04/01/2018	TC	MS	A3	1:2,000,000
2	25/07/2017	TC	MS	A3	1:2,000,000

Co-ordinate system: British National Grid

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No	Order Limit Name
1	WNDA
2	Cefn Coch
3	Llanfaethlu
4	Llanfachraeth
5	Parc Cybi
6	Valley
7	Dalar Hir
8	Ty Du
9	Cae Canol-dydd
10	Cors Gwawr

200000

300000

400000

300000

N

Pen Llyn a'r Sarnau / Lleyn Peninsula and the Sarnau SAC

Bae Ceredigion / Cardigan Bay SAC

Snowdonia National Park

Bangor

St Asaph

Liverpool

Manchester

Birmingham

Cardiff / Caerdydd

London

Chester

Wrexham

Aberystwyth

Cardigan

Machynlleth

Welshpool

Montgomery

Newtown

Llandrindod Wells

Builth Wells

Hay-On-Wye

Llangollen

Bala

Porthmadog

Pwllheli

Criccieth

Caernarfon

Betws-Y-Coed

Llanrwst

Bethesda

Llanfairfechan

Llangefni

Amlwch

Holyhead

Prestatyn

Rhyl

Abergele

Colwyn Bay

Llandudno

Denbigh

Ruthin

Holywell

Flint

Connah's Quay

Buckley

Ellesmere Port

Weston

Neston

Heswall

Bebington

Wallasey

Hoylake

Bootle

Formby

Oswestry

Knighton

Presteigne

Kington

Lampeter

Newcastle Emlyn

Llanwrtyd Wells

Llandovery

Dolgellau

Barmouth

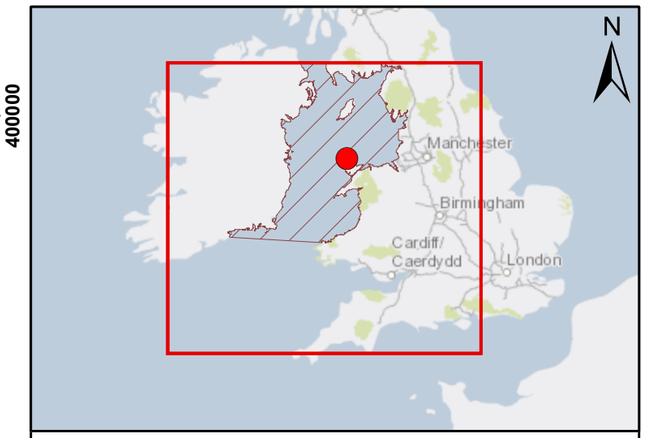
Tywyn

Porth

Llanidloes

0

50 km



Legend

- Order Limits for the purposes of DCO (Refer to figure 2-1 in chapter 2 for details)
- Disposal Site
- Irish Seas Marine Mammal Management Unit

Special Area of Conservation (SAC)

- Bae Ceredigion / Cardigan Bay
- Pen Llyn a'r Sarnau / Lleyn Peninsula and the Sarnau

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Client: HORIZON NUCLEAR POWER

Project: Wylfa Newydd Project

Title: SACs screened into the assessment for bottlenose dolphin (pursuant to Regulation 5(2)(g))

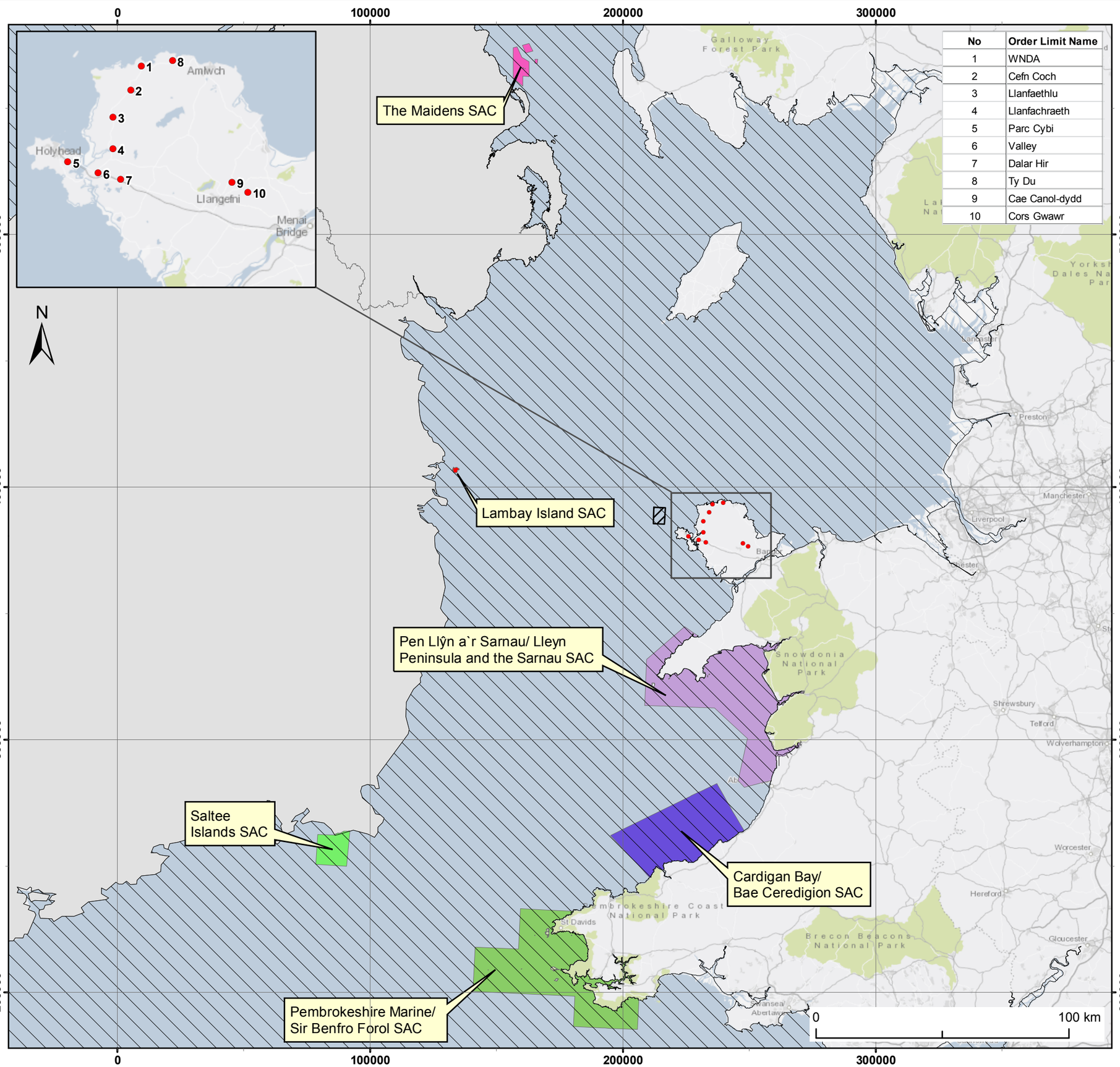
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3	30/11/2017	TC	MS	A3	1:650,000

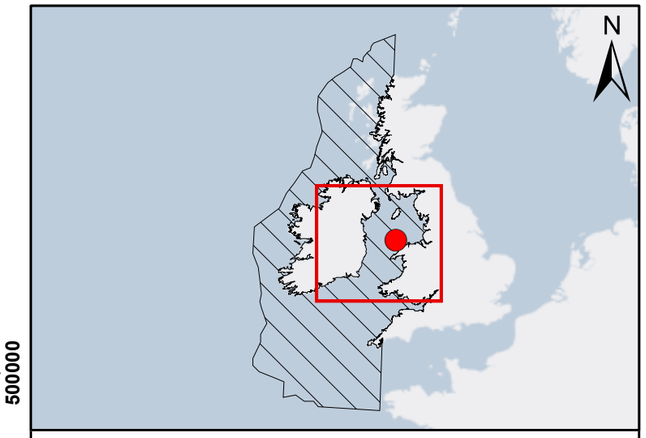
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No	Order Limit Name
1	WNDA
2	Cefn Coch
3	Llanfaethlu
4	Llanfachraeth
5	Parc Cybi
6	Valley
7	Dalar Hir
8	Ty Du
9	Cae Canol-dydd
10	Cors Gwawr



Legend

- Order Limits for the purposes of DCO (Refer to figure 2-1 in chapter 2 for details)
- Disposal Site
- OSPAR area: Celtic Seas

Special Area of Conservation (SAC)

- Cardigan Bay/ Bae Ceredigion
- Lambay Island
- Pembrokeshire Marine/ Sir Benfro Forol
- Pen Llŷn a`r Sarnau/ Lleyn Peninsula and the Sarnau
- Saltee Islands
- The Maidens

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Client: HORIZON NUCLEAR POWER

Project: Wylfa Newydd Project

Title: SACs screened into the assessment for grey seal (pursuant to Regulation 5(2)(g))

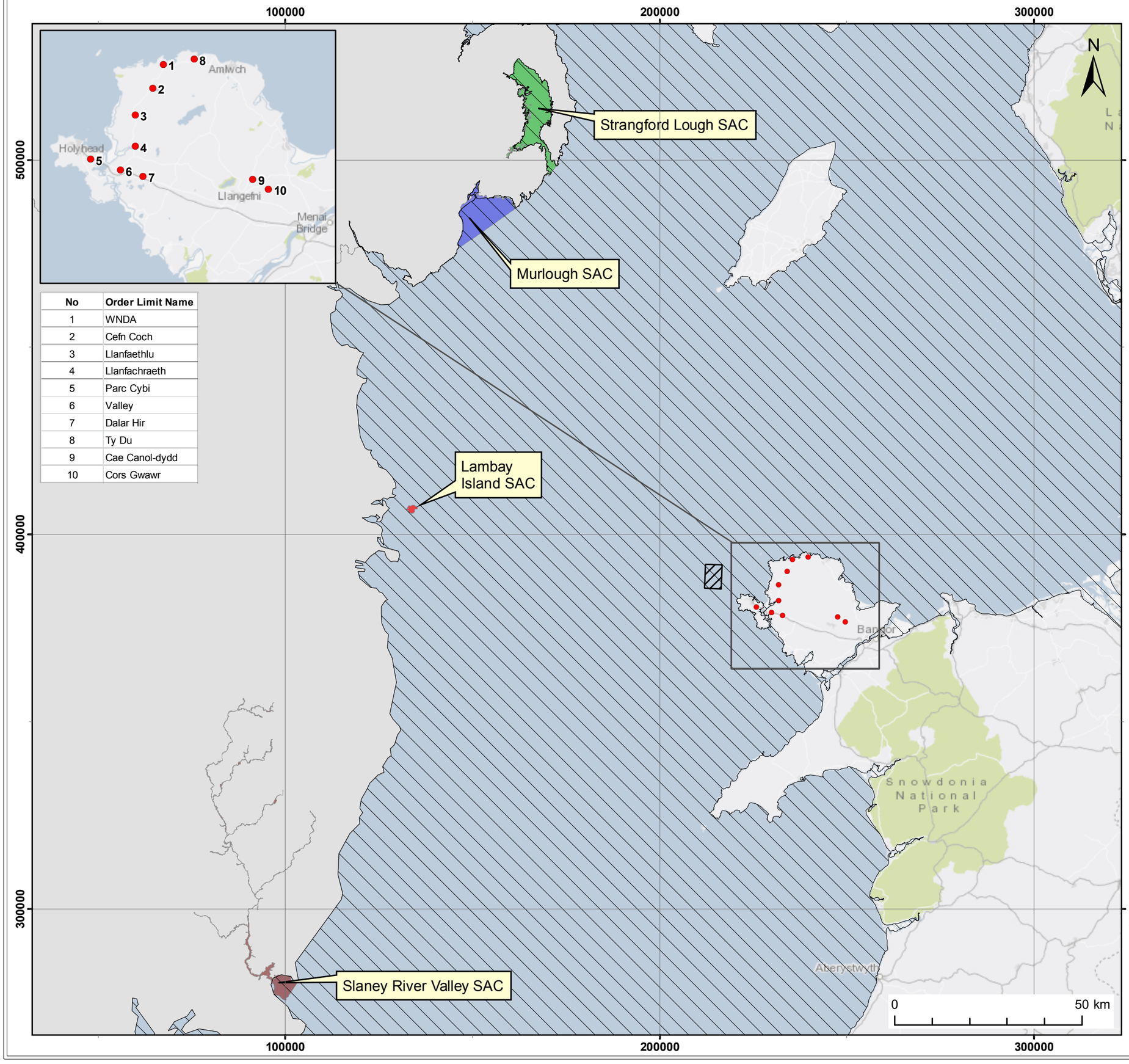
Figure: 5

Revision:	Date:	Drawn:	Checked:	Size:	Scale:
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2	25/07/2017	TC	MS	A3	1:1,500,000

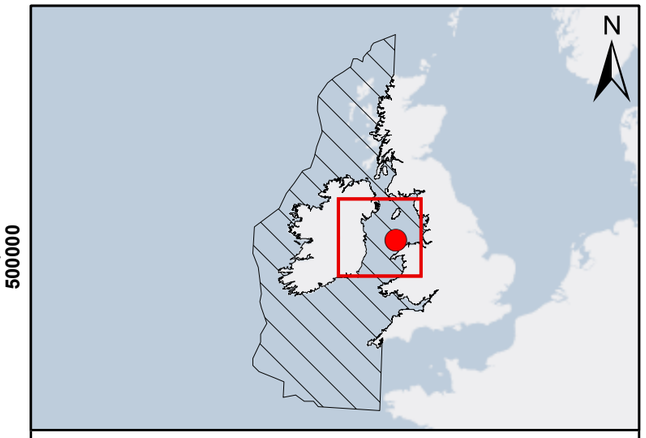
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No	Order Limit Name
1	WNDA
2	Cefn Coch
3	Llanfaethlu
4	Llanfachraeth
5	Parc Cybi
6	Valley
7	Dalar Hir
8	Ty Du
9	Cae Canol-dydd
10	Cors Gwawr



Legend

- Order Limits for the purposes of DCO (Refer to figure 2-1 in chapter 2 for details)
- Disposal Site
- OSPAR area: Celtic Seas

Special Area of Conservation (SAC)

- Lambay Island
- Murlough
- Slaney River Valley
- Strangford Lough

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Client: HORIZON NUCLEAR POWER

Project: Wylfa Newydd Project

Title: SACs screened into the assessment for harbour seal (pursuant to Regulation 5(2)(g))

Figure: 6

Revision:	Date:	Drawn:	Checked:	Size:	Scale:
3	04/01/2018	TC	MS	A3	1:1,000,000
2	25/07/2017	TC	MS	A3	1:1,000,000

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Table C1 Qualifying features of SACs and cSACs considered in the Stage 1 Screening exercise, with those features for which the potential for LSE has been determined (and therefore requiring Stage 2 assessment) identified in bold text

Gogledd Môn Forol / North Anglesey Marine [UK0030398] candidate SAC – Wales Distance from WNDA – 0km Distance from ZOI (marine water quality) – 0km
Qualifying features: Annex I habitats: - None proposed Annex II species: - **1351 Harbour porpoise (*Phocoena phocoena*)**
Bae Cemlyn / Cemlyn Bay [UK0030114] SAC - Wales Distance from WNDA – 0.1km Distance from ZOI (marine water quality) – 0km
Qualifying features: Annex I habitats: - **1150 Coastal lagoons** - **1220 Perennial vegetation of stony banks** Annex II species: - None
Glannau Ynys Gybi / Holy Island Coast [UK0013046] SAC - Wales Distance from Parc Cybi – 2.2km Distance from ZOI (air quality (combustion plant)) – 0km
Qualifying features: Annex I habitats: - **1230 Vegetated sea cliffs of the Atlantic and Baltic coasts** - **4030 European dry heaths** - **4010 Northern Atlantic wet heaths with *Erica tetralix*** Annex II species: - None
Llyn Dinam [UK0030186] SAC – Wales Distance from Dalar Hir – 1km Distance from ZOI (air quality (combustion plant)) – 0km
Qualifying features:

Annex I habitats:

- **3150 Natural eutrophic lakes with Magnopotamion or Hydrocharition-type vegetation**

Annex II species:

- None

Corsydd Mon / Anglesey Fens [UK0012884] SAC – Wales
Distance from Dalar Hir – 13.4km
Distance from ZOI (air quality (combustion plant)) – 0km

Qualifying features:

Annex I habitats:

- **4010 Northern Atlantic wet heaths with *Erica tetralix***
- **6410 Molinia meadows on calcareous, peaty or clayey-silt-laden soils**
- **7210 Calcareous fens with *Cladium mariscus* and species of the *Caricion davallianae***
- **7230 Alkaline fens**
- **3140 Hard oligo-mesotrophic waters with benthic vegetation**

Annex II species:

- **1044 Southern damselfly (*Coenagrion mercuriale*)**
- **1065 Marsh fritillary butterfly (*Eurodryas, Hypodryas*)**
- **1013 Geyer`s whorl snail (*Vertigo geyeri*)**

Afon Gwyrfai a Llyn Cwellyn [UK0030046] SAC – Wales
Distance from Dalar Hir – 22.5km
Distance from ZOI (marine water quality) – 52km

Qualifying features:

Annex I habitats:

- 3130 Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea
- 3260 Watercourses of plain to montane levels with *Ranunculion fluitantis* and Callitricho-Batrachion vegetation

Annex II species:

- **1106 Atlantic salmon (*Salmo salar*)**
- 1355 Otter (*Lutra lutra*)
- 1831 Floating water-plantain (*Luronium natans)*

Pen Llyn a'r Sarnau / Lleyn Peninsula and the Sarnau [UK0013117] SAC – Wales
Distance from WNDA – 48.0km
Distance from ZOI (marine water quality) – 44.5km

Qualifying features:

Annex I habitats:

- 1110 Sandbanks which are slightly covered by sea water all the time
- 1130 Estuaries
- 1150 Coastal lagoons
- 1160 Large shallow inlets and bays
- 1170 Reefs
- 1140 Mudflats and sandflats not covered by seawater at low tide
- 1310 Salicornia and other annuals colonizing mud and sand
- 1330 Atlantic salt meadows (Glauco-Puccinellietalia maritimae)
- 8330 Submerged or partially submerged sea caves

Annex II species:

- **1364 Grey seal (*Halichoerus grypus*)**
- **1349 Bottlenose dolphin (*Tursiops truncatus*)**
- 1355 Otter (*Lutra lutra*)

Gorllewin Cymru Forol / West Wales Marine candidate [UK0030397] SAC– Wales
Distance from WNDA – 48.8km
Distance from ZOI (marine water quality) – 45.4km

Qualifying features:

Annex I habitats:

- None proposed

Annex II species:

- **1351 Harbour porpoise (*Phocoena phocoena*)**

Afon Eden – Cors Goch Trawsfynydd [UK0030075] SAC – Wales
Distance from WNDA – 137km
Distance from ZOI (marine water quality) – 131km

Qualifying features:

Annex I Habitats

- 7110 Active raised bogs

Annex II Species

- **1106 Atlantic salmon (*Salmo salar*)**
- **1029 Freshwater pearl mussel (*Margaritifera margaritifera*)**
- 1831 Floating water-plantain (*Luronium natans*)
- 1355 Otter (*Lutra lutra*)

Afon Dyfrdwy a llyn Tegid / River Dee and Bala Lake [UK0030252] SAC Wales / England
Distance from WNDA – 102km

Distance from ZOI (marine water quality) – 96.5km
Qualifying features: Annex I habitats: - 3260 Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation Annex II species: - 1095 Sea lamprey (*Petromyzon marinus*) - 1099 River lamprey (*Lampetra fluviatilis*) - 1163 Bullhead (*Cottus gobio*) - 1355 Otter (*Lutra lutra*) - **1106 Atlantic salmon (*Salmo salar*)** - 1831 Floating water-plantain (*Luronium natans*)
Bae Ceredigion / Cardigan Bay SAC [UK0012712] – Wales Distance from WNDA – 109.0km Distance from ZOI (marine water quality) – 106.7km
Qualifying features: Annex I habitats: - 1110 Sandbanks which are slightly covered by sea water all the time - 1170 Reefs - 8330 Submerged or partially submerged sea caves Annex II species: - **1349 Bottlenose dolphin (*Tursiops truncatus*)** - **1364 Grey seal (*Halichoerus grypus*)** - 1095 Sea lamprey (*Petromyzon marinus*) - 1099 River lamprey (*Lampetra fluviatilis*)
Afon Teifi / River Teifi [UK0012670] SAC – Wales Distance from WNDA – 155km Distance from ZOI (marine water quality) – 149km
Qualifying features: Annex I Habitats - 3260 Water courses of plain to montane levels with the *Ranunculion fluitantis* and Callitricho-Batrachion vegetation - 3130 Oligotrophic to mesotrophic standing waters with vegetation of the *Littorelletea uniflorae* and/or of the Isoëto-Nanojuncetea Annex II Species

- 1099 River lamprey (*Lampetra fluviatilis*)
- **1106 Atlantic salmon (*Salmo salar*)**
- 1163 Bullhead (*Cottus gobio*)

Dynesfeydd Môr Hafren / Bristol Channel Approaches [UK0030396] candidate SAC - Wales / England

Distance from WNDA – 185.2km

Distance from ZOI (marine water quality) – 182.1km

Qualifying features:

Annex I habitats:

- None proposed

Annex II species:

- **1351 Harbour porpoise (*Phocoena phocoena*)**

Sir Benfro Forol / Pembrokeshire Marine SAC [UK0013116] - Wales

Distance from WNDA – 186.5km

Distance from ZOI (marine water quality) – 164.7km

Qualifying features:

Annex I Habitats

- 1130 Estuaries
- 1160 Large shallow inlets and bays
- 1170 Reefs
- 1110 Sandbanks which are slightly covered by sea water all the time
- 1140 Mudflats and sandflats not covered by seawater at low tide
- 1150 Coastal lagoons
- 1330 Atlantic salt meadows (Glauco-Puccinellietalia maritimae)
- 8330 Submerged or partially submerged sea caves

Annex II Species

- **1364 Grey seal (*Halichoerus grypus*)**
- 1441 Shore dock (*Rumex rupestris)*
- 1095 Sea lamprey (*Petromyzon marinus*)
- 1099 River lamprey (*Lampetra fluviatilis*)
- 1102 Allis shad (*Alosa alosa*)
- 1103 Twaite shad (*Alosa fallax*)
- 1355 Otter (*Lutra lutra*)

North Channel [UK0030399] candidate SAC – Northern Ireland

Distance from WNDA – 94.5km

Distance from ZOI (marine water quality) – 89.5km

Qualifying features:

Annex I habitats:

- None proposed

Annex II species:

- **1351 Harbour porpoise (*Phocoena phocoena*)**

Murlough [UK0016612] SAC – Northern Ireland

Distance from WNDA – 117.9km

Distance from ZOI (marine water quality) – 112.9km

Annex I habitats:

- 1110 Sandbanks which are slightly covered by sea water all the time
- 1140 Mudflats and sandflats not covered by seawater at low tide
- 1330 Atlantic salt meadows
- 2110 Embryonic shifting dunes
- 2120 Shifting dunes along the shoreline with *Ammophila arenaria*
- 2170 Dunes with Salix repens spp. argentea (*Salicion arenariae*)
- 2130 Fixed coastal dunes with herbaceous vegetation
- 2150 Atlantic decalcified fixed dunes (Calluno-Ulicetea)

Annex II species:

- Marsh fritillary butterfly
- **1365 Harbour seal (*Phoca vitulina*)**

Strangford Lough [UK0016618] SAC – Northern Ireland

Distance from WNDA – 119.8km

Distance from ZOI (marine water quality) – 114.8km

Annex I habitats:

- 1140 Mudflats and sandflats not covered by seawater at low tide
- 1150 Coastal lagoons
- 1160 Large shallow inlets and bays
- 1170 Reefs
- 1210 Annual vegetation of drift lines
- 1220 Perennial vegetation of stony banks
- 1310 Salicornia and other annuals colonising mud and sand
- 1330 Atlantic salt meadows

Annex II species:

- **1365 Harbour seal (*Phoca vitulina*)**

The Maidens SAC [UK0030384] – Northern Ireland

Distance from WNDA – 180.4km Distance from ZOI (marine water quality) – 175.4km
Qualifying features: **Annex I habitats:** - 1110 Sandbanks which are slightly covered by sea water all the time - 1170 Reefs **Annex II species** - **1364 Grey seal (*Halichoerus grypus*)**
Rockabill to Dalkey Island SAC [IE003000] - Ireland Distance from WNDA – 97.4km Distance from ZOI (marine water quality) – 92km
Qualifying features: Annex I habitats: - 1170 Reefs Annex II species: - **1351 Harbour porpoise (*Phocoena phocoena*)**
Lambay Island SAC [IE0000204]– Ireland Distance from WNDA – 98.8km Distance from ZOI (marine water quality) – 93.8km
Qualifying features: Annex I habitats: - 1170 Reefs - 1230 Vegetated sea cliffs of the Atlantic and Baltic coasts Annex II species: - **1364 Grey seal (*Halichoerus grypus*)** - **1365 Harbour seal (*Phoca vitulina*)**
Slaney River Valley [IE0000781] SAC – Ireland Distance from WNDA – 141.2km Distance from ZOI (marine water quality) – 136.2km
Annex I habitats: - 1130 Estuaries - 1140 Mudflats and sandflats not covered by seawater at low tide - 1410 Mediterranean salt meadows

- 3260 Watercourses of plain to montane levels with the Ranunculion
- 91A0 Old sessile oak woods with Ilex and Blechnum in the British Isles
- 91E0 Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior*

Annex II species:

- 1029 Freshwater pearl mussel (*Margaritifera margaritifera)*
- 1095 Sea lamprey (*Petromyzon marinus)*
- 1096 Brook lamprey (*Lampetra planeri)*
- 1099 River lamprey (*Lampetra fluviatilis)*
- 1103 Twaite shad (*Alosa fallax fallax)*
- 1106 Salmon (*Salmo salar)*
- 1355 Otter (*Lutra lutra)*
- **1365 Harbour seal (*Phoca vitulina)***

Saltee Islands SAC [IE0000707]– Ireland

Distance from WNDA – 191.0km

Distance from ZOI (marine water quality) – 186km

Qualifying features:

Annex I habitats:

- 1140 Mudflats and sandflats not covered by seawater at low tide
- 1170 Reefs
- 1230 Vegetated sea cliffs of the Atlantic and Baltic coasts
- 8330 Submerged or partially submerged sea caves

Annex II species:

- **1364 Grey seal (*Halichoerus grypus*)**

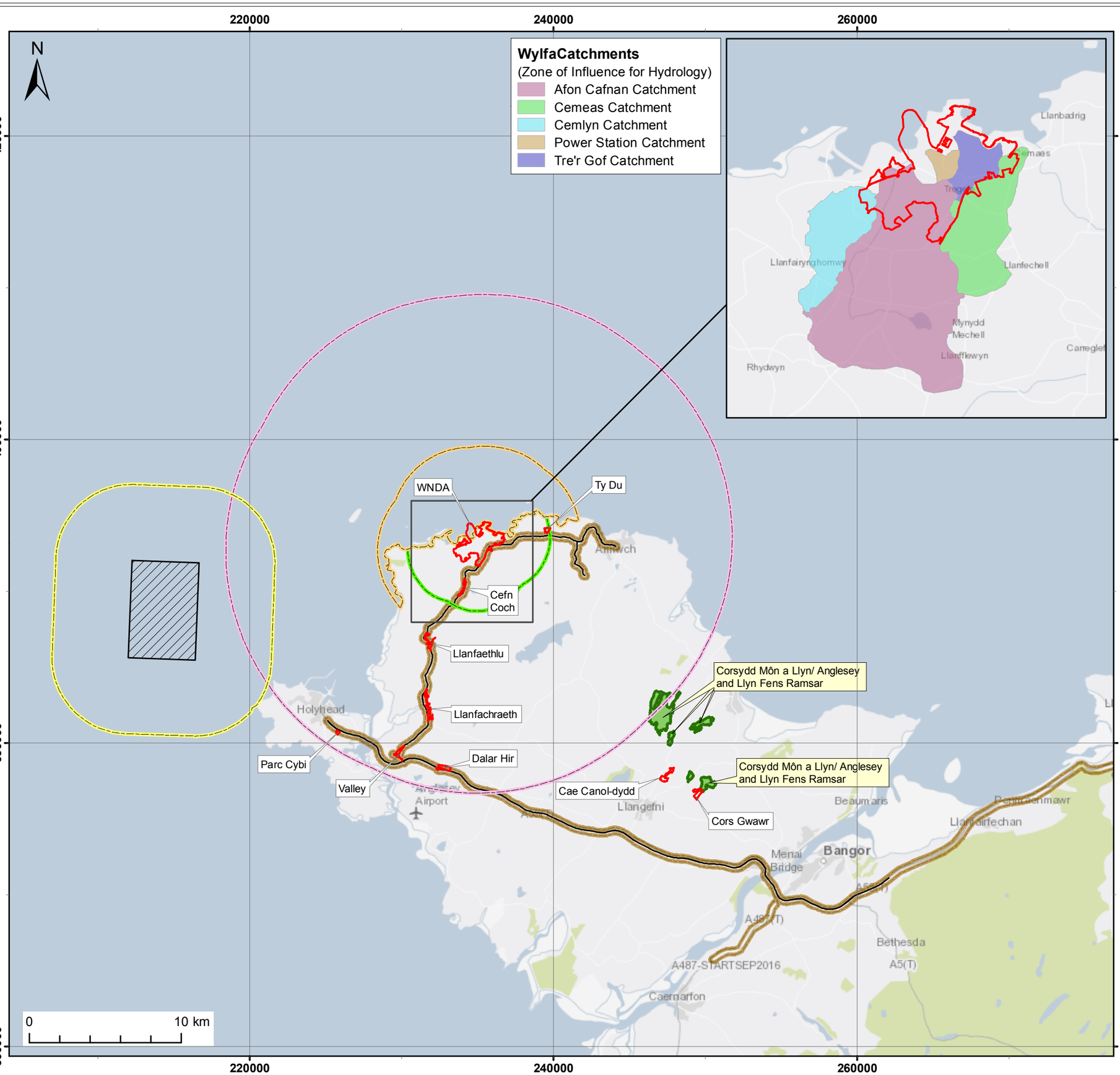
Appendix D Results of Screening for Ramsar sites (habitats and non-bird species)

Figure 7 Ramsar sites screened into the assessment for qualifying habitats and species

Table D1 Habitats and non-bird qualifying features of Ramsar sites considered in the Stage 1 Screening exercise, with those features for which the potential for LSE has been determined (and therefore requiring Stage 2 assessment) identified in bold text. Only the qualifying features identified in bold text are carried into the screening matrices presented in **appendix F**.

Table D1 provides the distance from the European Designated Site boundary to the closest point of the Project boundary.

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Legend

- Order Limits for the purposes of DCO
- Disposal Site
- Potential zone of influence for marine water quality (WNDA site)
- Potential zone of influence for marine water quality (Disposal Site)
- Potential zone of influence for air quality (combustion plant)
- Potential zone of influence for hydrogeology (WNDA site)
- Affected road network
- Potential zone of influence for air quality (affected road network)
- Ramsar Sites

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Client: HORIZON NUCLEAR POWER

Project: Wylfa Newydd Project

Title: Ramsar sites screened into the assessment for qualifying habitats and species (pursuant to Regulation 5(2)(g))

Figure: 7

Revision:	Date:	Drawn:	Checked:	Size:	Scale:
4	04/01/2018	TC	MS	A3	1:250,000
3	24/08/2017	TC	MS	A3	1:250,000

Co-ordinate system: British National Grid

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Table D1 Habitats and non-bird qualifying features of Ramsar sites considered in the Stage 1 Screening exercise, with those features for which the potential for LSE has been determined (and therefore requiring Stage 2 assessment) identified in bold text

Corsydd Môn a Llyn/Anglesey and Llyn Fens Ramsar - Wales (UK14005) Distance from Dalar Hir – 13.4km Distance from ZOI (air quality (combustion plant)) – 0km
Qualifying features: - **Suite of base-rich, calcareous fens which is a rare habitat type within the United Kingdom's biogeographical zone** - **Diverse flora and fauna with associated rare species and is of special value for maintaining the genetic and ecological diversity of the region**

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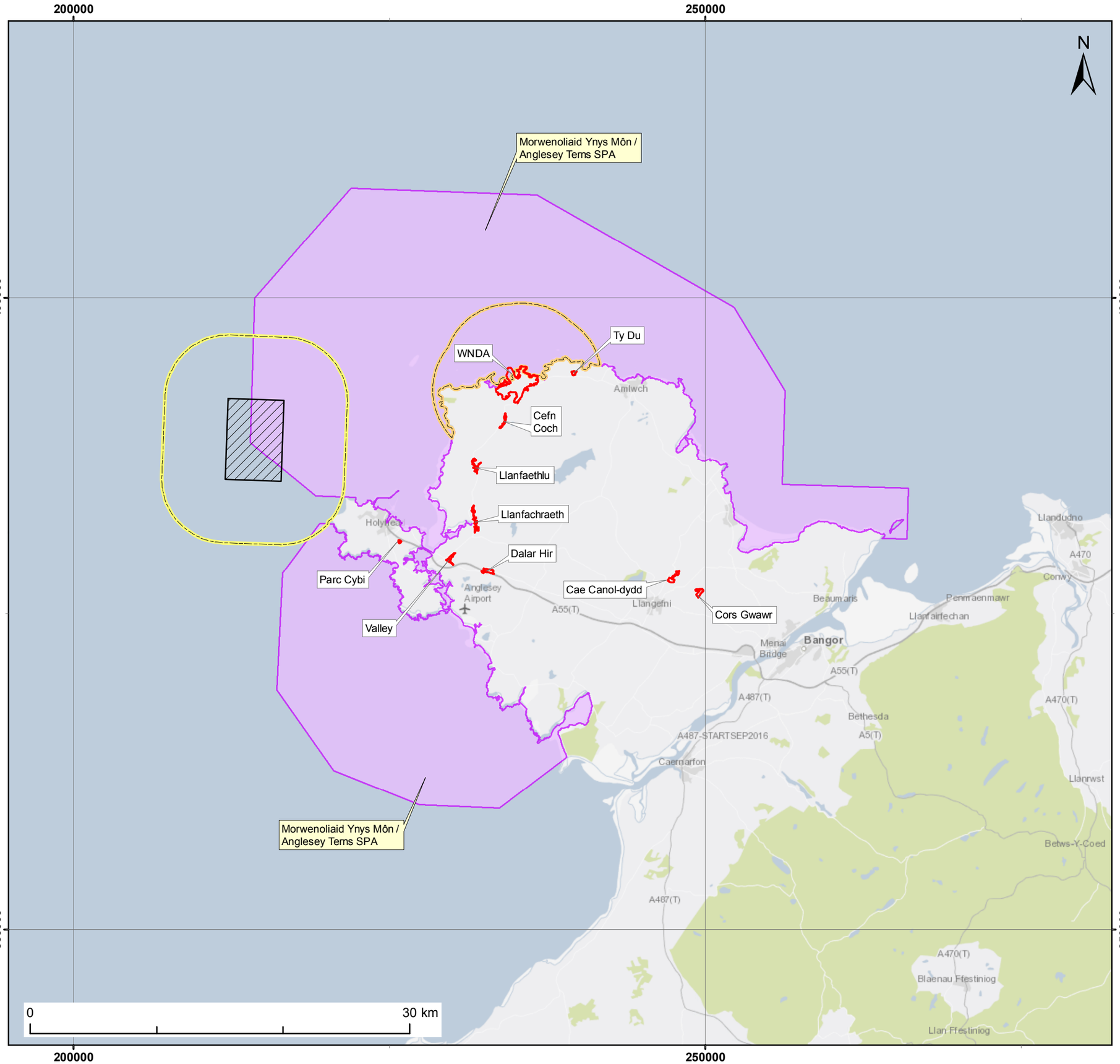
Appendix E Results of Screening for SPAs, pSPAs and Ramsar (bird) sites

Figures 8 to 19	Sites screened into the assessment for Annex I and migratory bird species
Figure 20	SPAs screened into the assessment for passage populations

Table E1 Qualifying features of SPAs, pSPAs and Ramsar (bird) sites considered in the Stage 1 Screening exercise, with those features for which the potential for LSE has been determined (and therefore requiring Stage 2 assessment) identified in bold text. Only the qualifying features identified in bold text are carried into the screening matrices presented in **appendix F**.

Table E1 provides the distance from the European Designated Site boundary to the closest point of the Project boundary.

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Legend

- Order Limits for the purposes of DCO
- Potential zone of influence for marine water quality (Disposal Site)
- Potential zone of influence for marine water quality (WNDA site)
- Disposal Site

Special Protection Area (SPA)

- Morwenoliaid Ynys Môn/Anglesey Terns

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Project: Wylfa Newydd Project

Title: SPAs classified for Arctic Tern (foraging range = 24.2km) (pursuant to Regulation 5(2)(g))

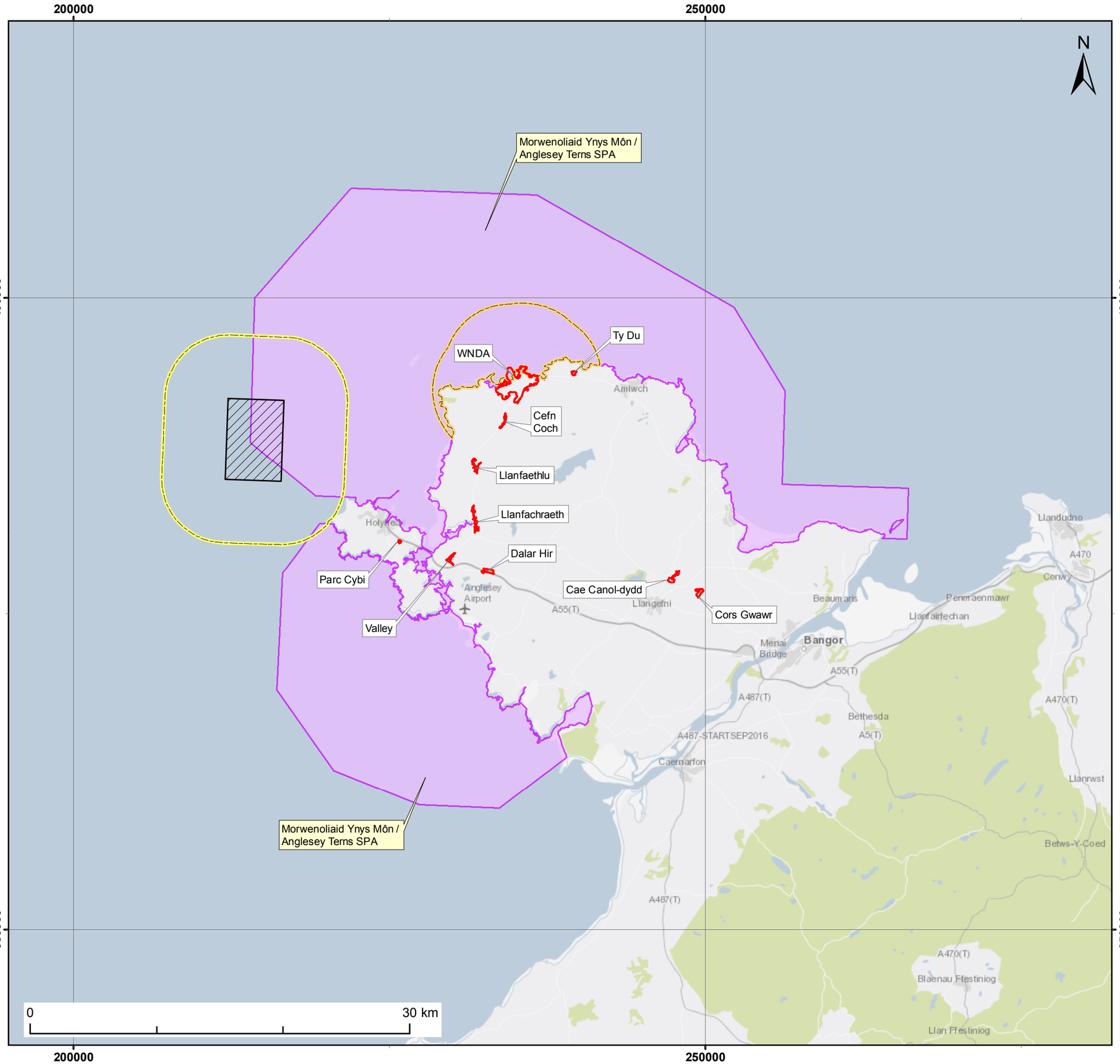
Figure: 8

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3	24/08/2017	TC	MS	A3	1:300,000

Co-ordinate system: British National Grid

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Legend

- Order Limits for the purposes of DCO
- Potential zone of influence for marine water quality (Disposal Site)
- Potential zone of influence for marine water quality (WNDA site)
- Disposal Site

Special Protection Area (SPA)

- Morwenoliaid Ynys Môn/Anglesey Terns

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Client: HORIZON NUCLEAR POWER

Project: Wylfa Newydd Project

Title: SPAs classified for CommonTern (foraging range = 15.2km) (pursuant to Regulation 5(2)(g))

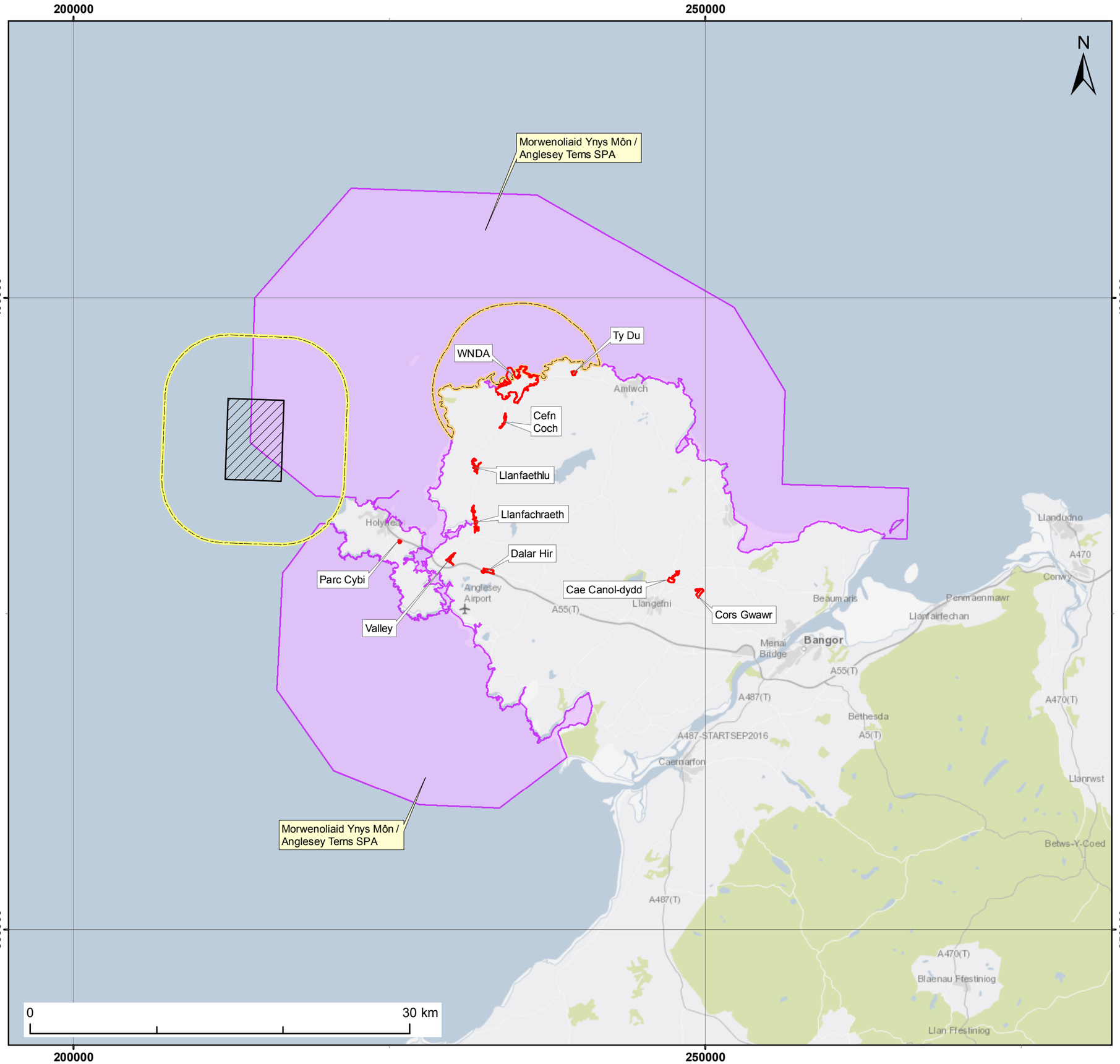
Figure: 9

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3	24/08/2017	TC	MS	A3	1:300,000

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Legend

- Order Limits for the purposes of DCO
- Potential zone of influence for marine water quality (Disposal Site)
- Potential zone of influence for marine water quality (WNDA site)
- Disposal Site

Special Protection Area (SPA)

- Morwenoliaid Ynys Môn/Anglesey Terns

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Project: Wylfa Newydd Project

Title: SPAs classified for Roseate Tern (foraging range = 16.6km) (pursuant to Regulation 5(2)(g))

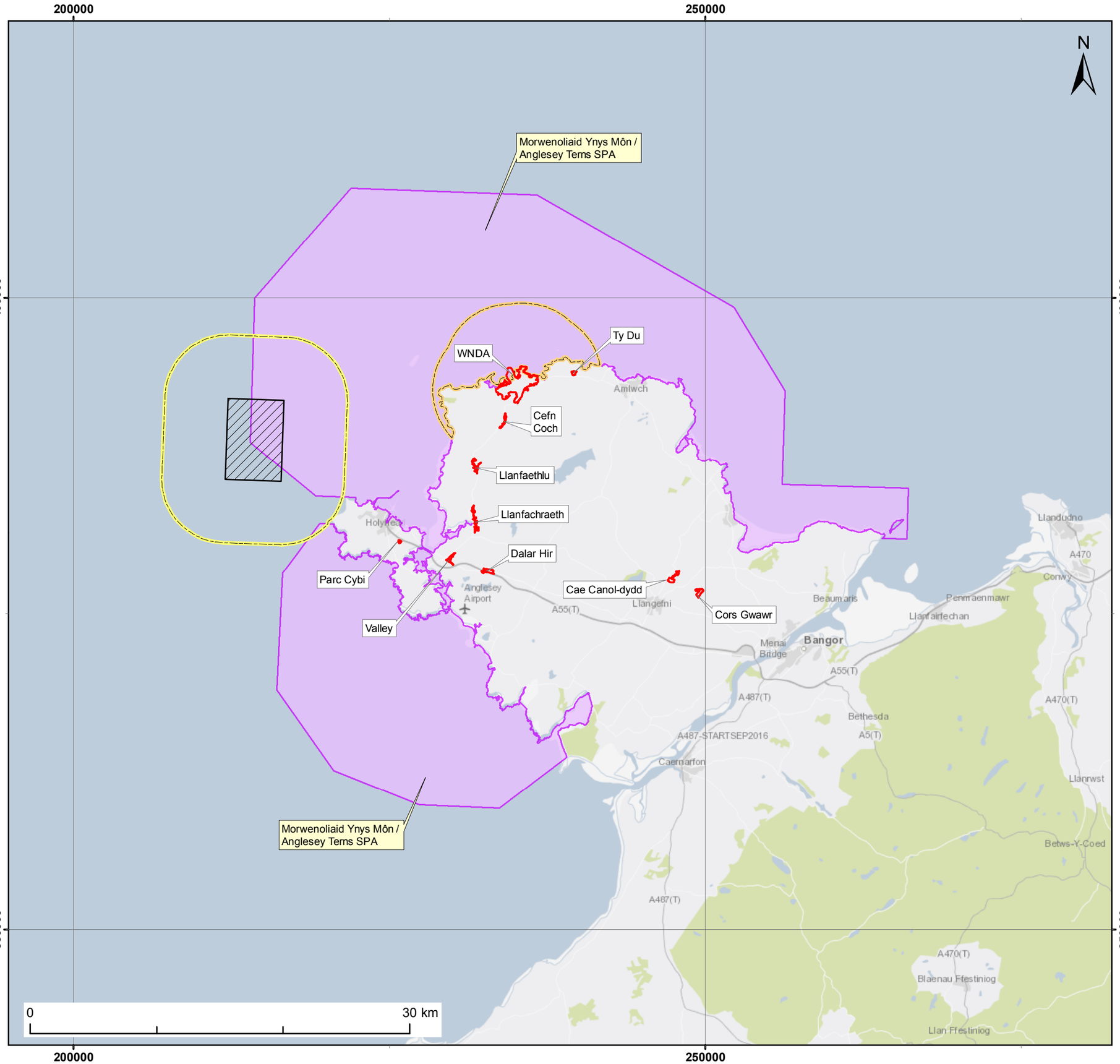
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Legend

- Order Limits for the purposes of DCO
- Potential zone of influence for marine water quality (Disposal Site)
- Potential zone of influence for marine water quality (WNDA site)
- Disposal Site

Special Protection Area (SPA)

- Morwenoliaid Ynys Môn/Anglesey Terns

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Project: Wylfa Newydd Project

Title: SPAs classified for Sandwich Tern (foraging range = 49km) (pursuant to Regulation 5(2)(g))

Figure: 11

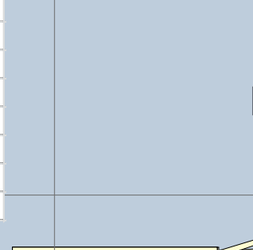
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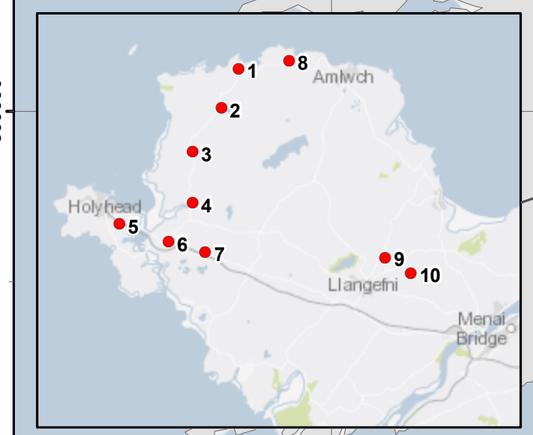
Co-ordinate system: British National Grid

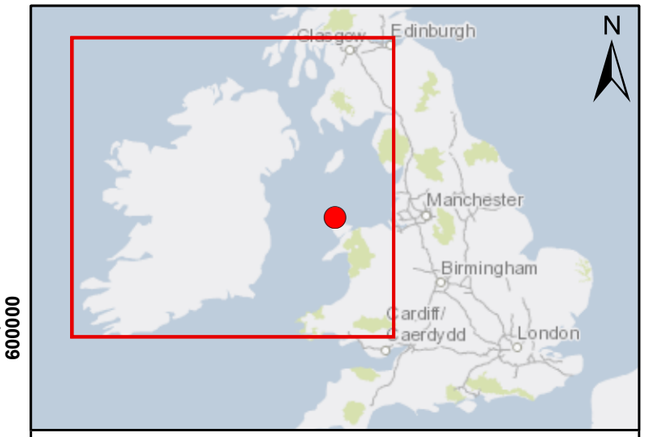
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No	Order Limit Name
1	WNDA
2	Cefn Coch
3	Llanfaethlu
4	Llanfachraeth
5	Parc Cybi
6	Valley
7	Dalar Hir
8	Ty Du
9	Cae Canol-dydd
10	Cors Gwawr







Legend

- Order Limits for the purposes of DCO (Refer to figure 2-1 in chapter 2 for details)
- Potential zone of influence for marine water quality (Disposal Site)
- Potential zone of influence for marine water quality (WNDA site)
- Disposal Site

Special Protection Area (SPA)

- Horn Head to Fanad Head
- Lambay Island
- Rathlin Island
- Saltee Islands
- Tory Island
- West Donegal Coast

Client: HORIZON NUCLEAR POWER

Project: Wylfa Newydd Project

Title: SPAs classified for Fulmar (foraging range = 400km) (pursuant to Regulation 5(2)(g))

Figure: 12

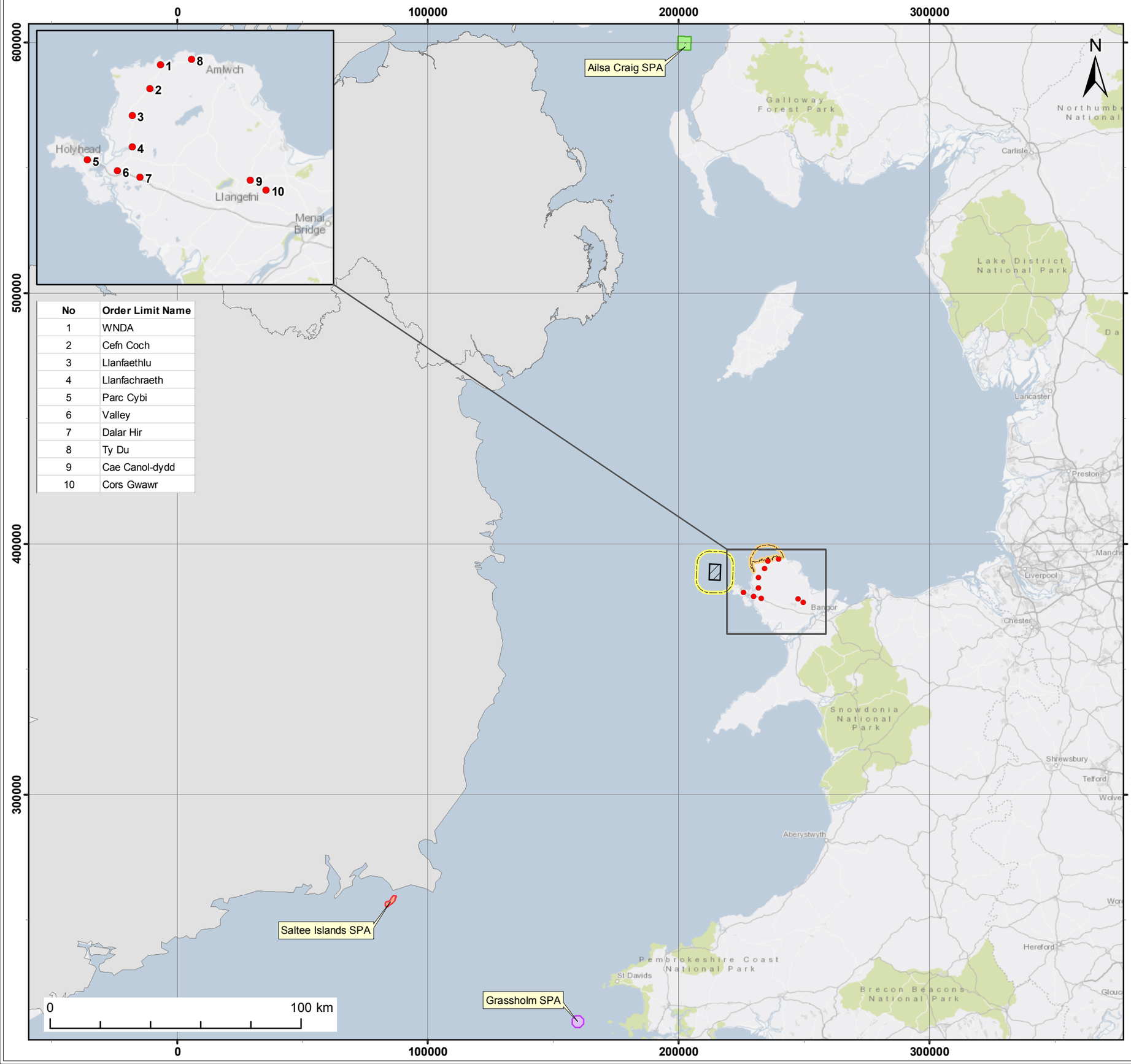
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3	25/07/2017	TC	MS	A3	1:2,300,000

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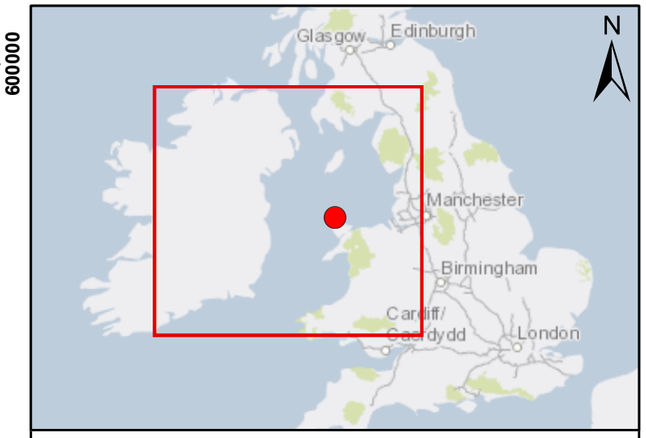
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No	Order Limit Name
1	WNDA
2	Cefn Coch
3	Llanfaethlu
4	Llanfachraeth
5	Parc Cybi
6	Valley
7	Dalar Hir
8	Ty Du
9	Cae Canol-dydd
10	Cors Gwawr



Legend

- Order Limits for the purposes of DCO (Refer to figure 2-1 in chapter 2 for details)
- Potential zone of influence for marine water quality (Disposal Site)
- Potential zone of influence for marine water quality (WNDA site)
- Disposal Site

Special Protection Area (SPA)

- Ailsa Craig
- Grassholm
- Saltee Islands

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Project: Wylfa Newydd Project

Title: SPAs classified for Gannet (foraging range = 229.4km) (pursuant to Regulation 5(2)(g))

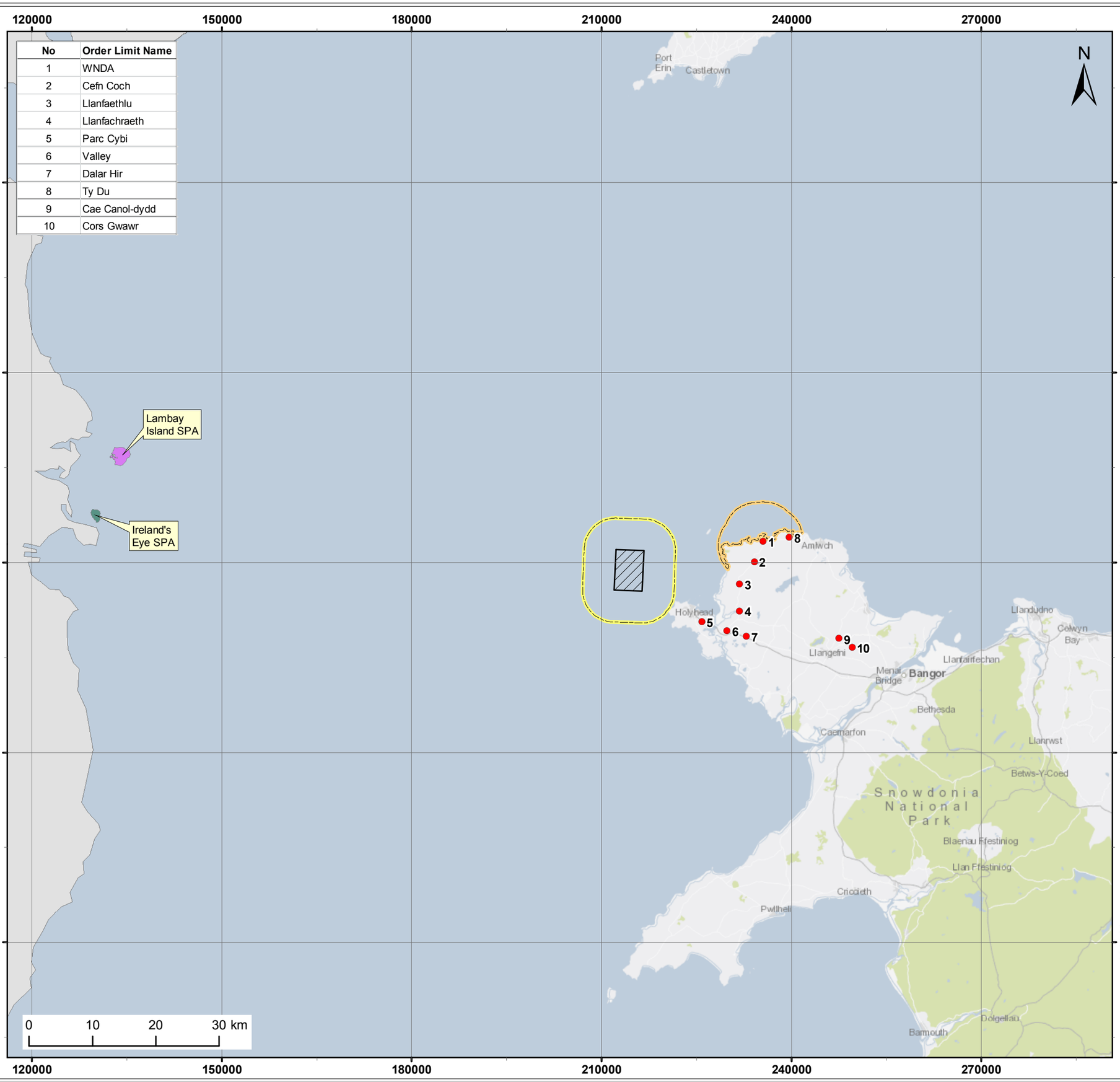
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3	25/07/2017	TC	MS	A3	1:1,500,000

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No	Order Limit Name
1	WNDA
2	Cefn Coch
3	Llanfaethlu
4	Llanfachraeth
5	Parc Cybi
6	Valley
7	Dalar Hir
8	Ty Du
9	Cae Canol-dydd
10	Cors Gwawr



Legend

- Order Limits for the purposes of DCO (Refer to figure 2-1 in chapter 2 for details)
- Disposal Site
- Potential zone of influence for marine water quality (WNDA site)
- Potential zone of influence for marine water quality (Disposal Site)

Special Protection Area (SPA)

- Ireland's Eye
- Lambay Island

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Client: HORIZON NUCLEAR POWER

Project: Wylfa Newydd Project

Title: SPAs classified for Guillemot (foraging range = 84.2km) (pursuant to Regulation 5(2)(g))

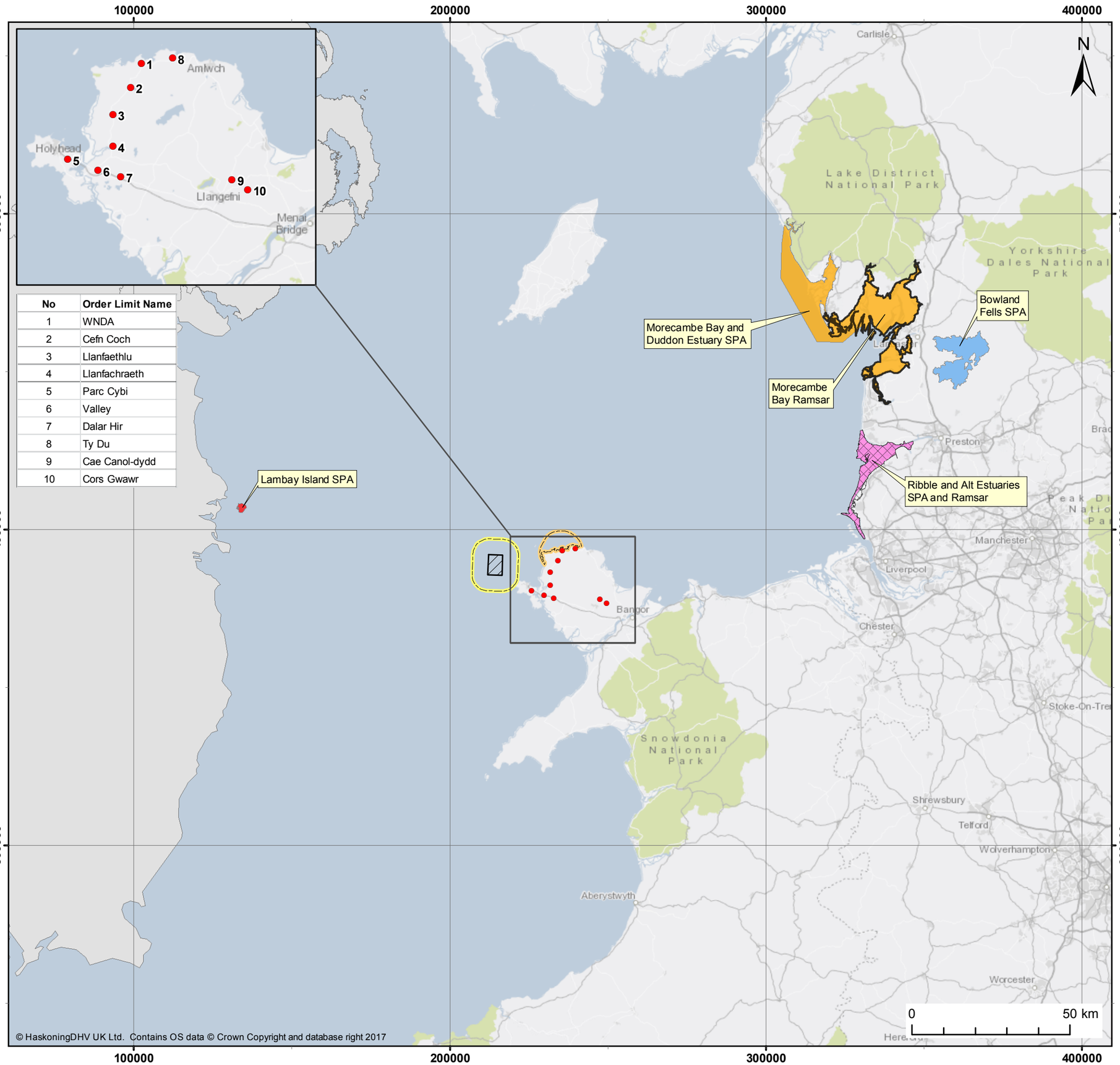
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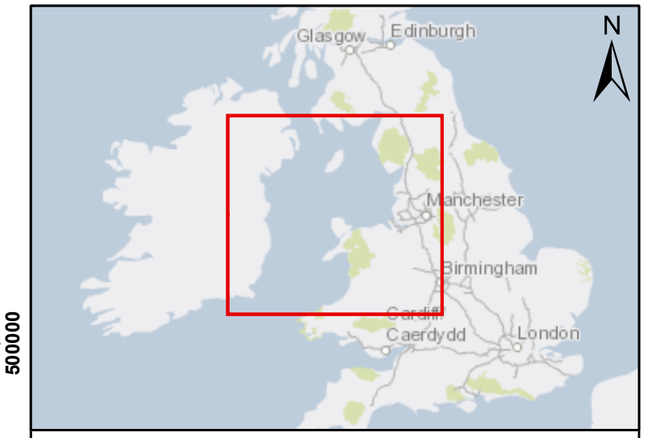
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No	Order Limit Name
1	WNDA
2	Cefn Coch
3	Llanfaethlu
4	Llanfachraeth
5	Parc Cybi
6	Valley
7	Dalar Hir
8	Ty Du
9	Cae Canol-dydd
10	Cors Gwawr



Legend

- Order Limits for the purposes of DCO (Refer to figure 2-1 in chapter 2 for details)
- Disposal Site
- Potential zone of influence for marine water quality (WNDA site)
- Potential zone of influence for marine water quality (Disposal Site)

Ramsar

- Morecambe Bay
- Ribble & Alt Estuaries

Special Protection Area (SPA)

- Bowland Fells
- Lambay Island
- Morecambe Bay and Duddon Estuary
- Ribble and Alt Estuaries

Client: HORIZON NUCLEAR POWER

Project: Wylfa Newydd Project

Title: SPAs classified for Lesser black-backed gull (foraging range = 141km) (pursuant to Regulation 5(2)(g))

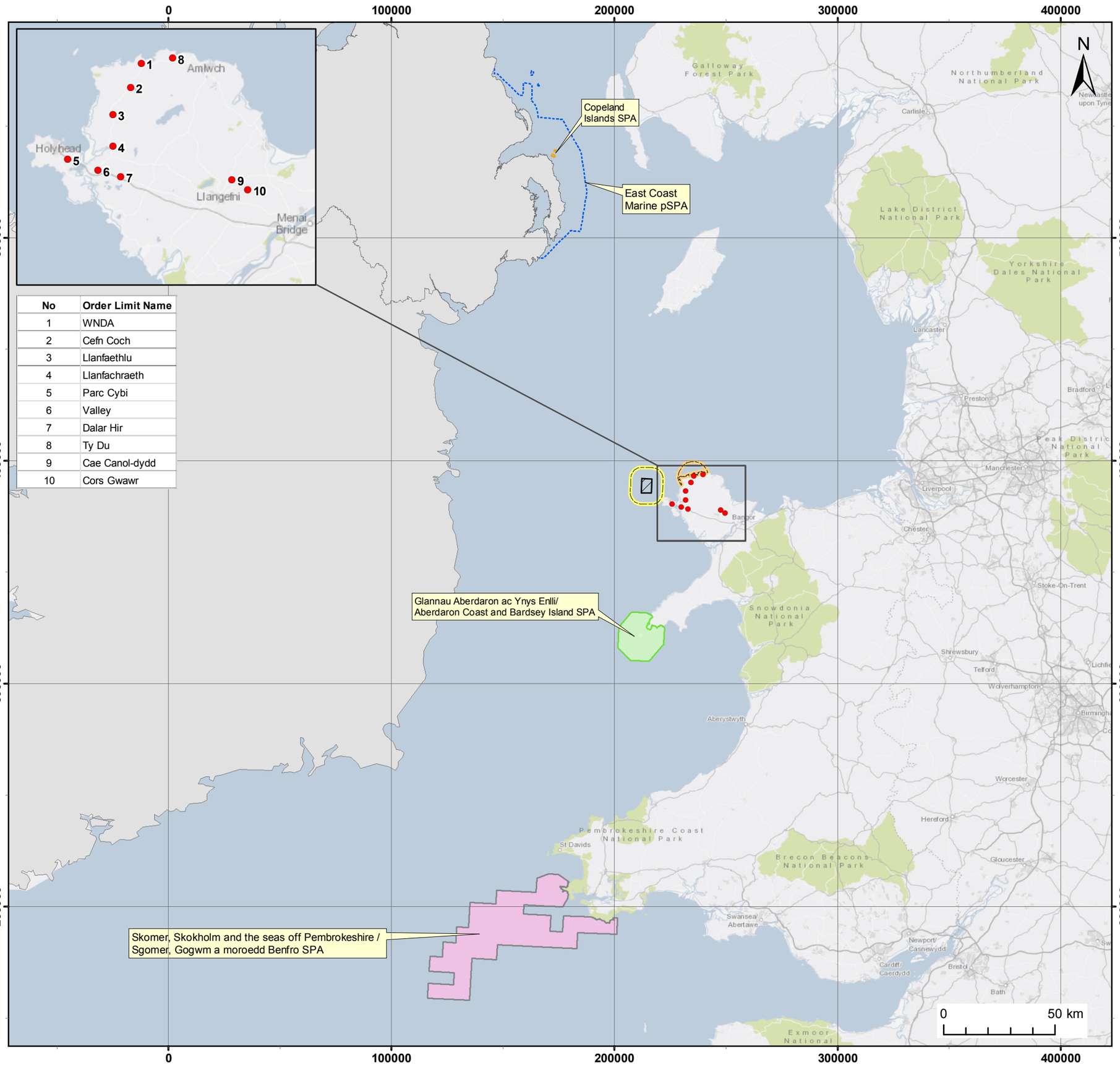
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4	02/08/2017	TC	MS	A3	1:1,800,000

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No	Order Limit Name
1	WNDA
2	Cefn Coch
3	Llanfaethlu
4	Llanfachraeth
5	Parc Cybi
6	Valley
7	Dalar Hir
8	Ty Du
9	Cae Canol-dydd
10	Cors Gwawr



Legend

- Order Limits for the purposes of DCO (Refer to figure 2-1 in chapter 2 for details)
- Disposal Site
- Potential zone of influence for marine water quality (WNDA site)
- Potential zone of influence for marine water quality (Disposal Site)

Special Protection Area (SPA)

- Copeland Islands
- Glannau Aberdaron ac Ynys Enlli/ Aberdaron Coast and Bardsey Island
- Skomer, Skokholm and the seas off Pembrokeshire / Sgomer, Gogwm a moroedd Benfro
- East Coast Marine pSPA

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Client: HORIZON NUCLEAR POWER

Project: Wylfa Newydd Project

Title: SPAs and pSPA classified for Manx shearwater (foraging range = 330km) (pursuant to Regulation 5(2)(g))

Figure: 16

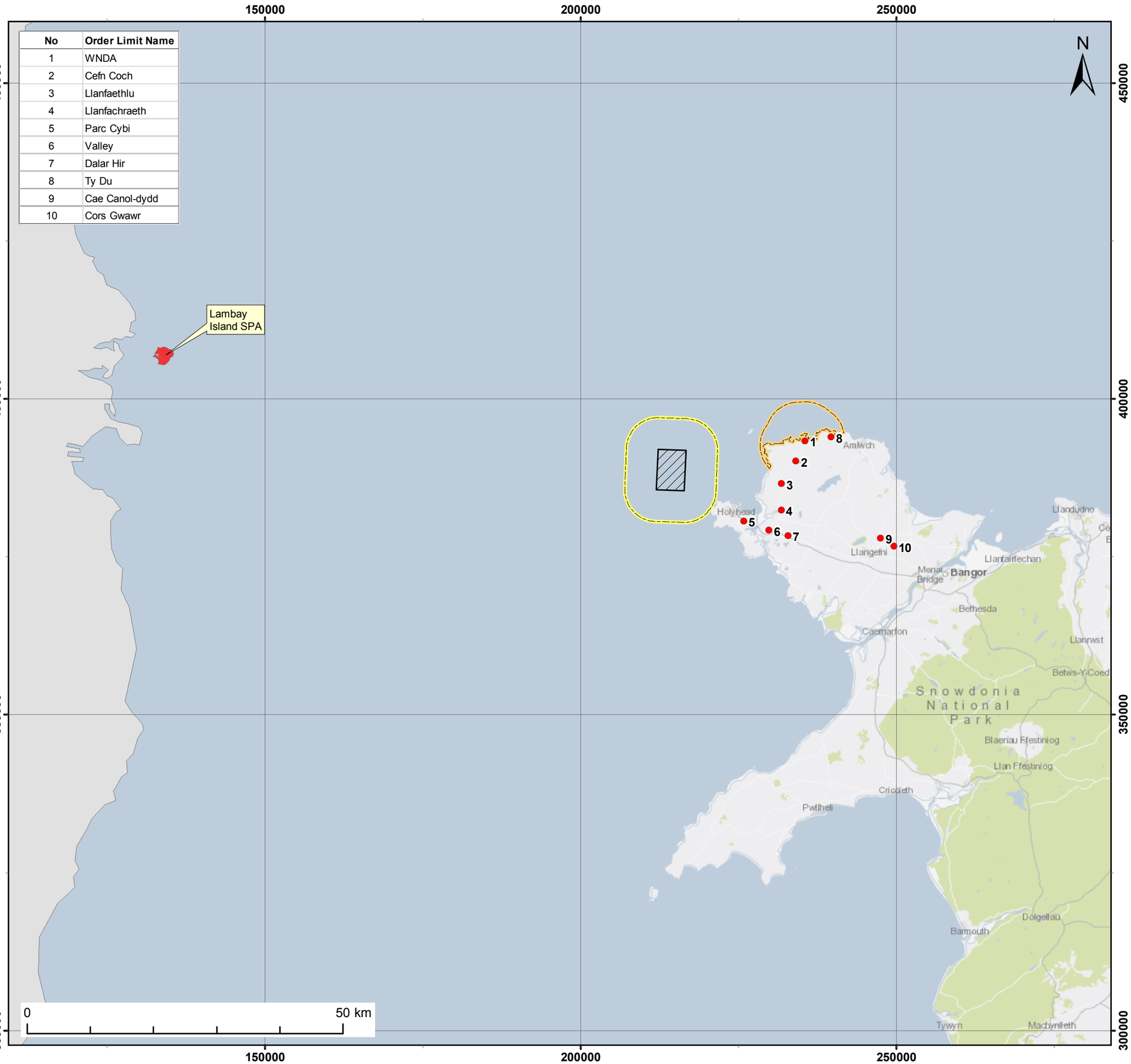
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4	15/01/2018	TC	MS	A3	1:1,700,000
3	25/07/2017	TC	MS	A3	1:1,700,000

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No	Order Limit Name
1	WNDA
2	Cefn Coch
3	Llanfaethlu
4	Llanfachraeth
5	Parc Cybi
6	Valley
7	Dalar Hir
8	Ty Du
9	Cae Canol-dydd
10	Cors Gwawr





Legend

- Order Limits for the purposes of DCO (Refer to figure 2-1 in chapter 2 for details)
- Disposal Site
- Potential zone of influence for marine water quality (WNDA site)
- Potential zone of influence for marine water quality (Disposal Site)

Special Protection Area (SPA)

- Lambay Island SPA

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Project: Wylfa Newydd Project

Title: SPAs classified for Puffin (foraging range = 105.4km) (pursuant to Regulation 5(2)(g))

Figure: 17

Revision:	Date:	Drawn:	Checked:	Size:	Scale:
4	15/01/2018	TC	MS	A3	1:600,000
3	25/07/2017	TC	MS	A3	1:1,160,000

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No	Order Limit Name
1	WNDA
2	Cefn Coch
3	Llanfaethlu
4	Llanfachraeth
5	Parc Cybi
6	Valley
7	Dalar Hir
8	Ty Du
9	Cae Canol-dydd
10	Cors Gwawr

200000 240000 280000

400000 360000 320000

N

Amlwch
Holyhead
Llangefni
Menai Bridge
Bangor
Llandudno
Colwyn Bay
Llanfairfechan
Bethesda
Caernarfon
Llanrwst
Betws-Y-Coed
Snowdonia National Park
Blaenau Ffestiniog
Llan Ffestiniog
Criccieth
Pwllheli
Bala
Dolgellau
Barmouth
Tywyn
Machynlleth

Glannau Ynys Gybi/ Holy Island Coast SPA

Mynydd Cilan, Trwyn y Wylfa ac Ynysoedd Sant Tudwal SPA

Glannau Aberdaron ac Ynys Enlli/ Aberdaron Coast and Bardsey Island SPA

0 20 km



Legend

- Order Limits for the purposes of DCO (Refer to figure 2-1 in chapter 2 for details)
- Disposal Site
- Potential zone of influence for marine water quality (WNDA site)
- Potential zone of influence for marine water quality (Disposal Site)

Special Protection Area (SPA)

- Glannau Aberdaron ac Ynys Enlli/ Aberdaron Coast and Bardsey Island
- Glannau Ynys Gybi/ Holy Island Coast
- Mynydd Cilan, Trwyn y Wylfa ac Ynysoedd Sant Tudwal

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Project: Wylfa Newydd Project

Title: SPAs classified for Red-billed chough (foraging range = 75km) (pursuant to Regulation 5(2)(g))

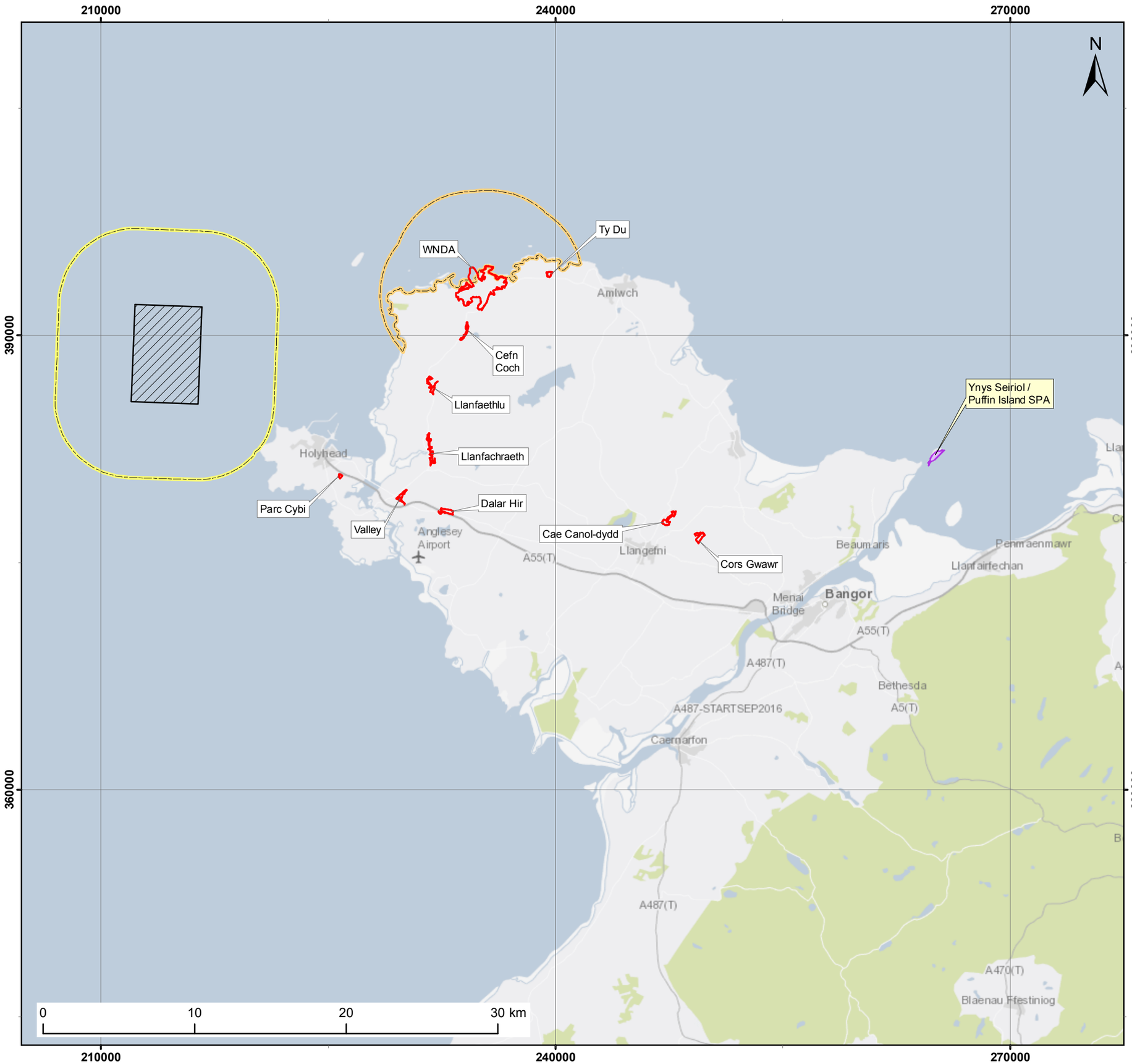
Figure: 18

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Legend

- Order Limits for the purposes of DCO
- Disposal Site
- Potential zone of influence for marine water quality (WNDA site)
- Potential zone of influence for marine water quality (Disposal Site)

Special Protection Area (SPA)

- Ynys Seiriol / Puffin Island

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Project: Wylfa Newydd Project

Title: SPAs classified for Cormorant (foraging range = 25km) (pursuant to Regulation 5(2)(g))

Figure: 19

Revision:	Date:	Drawn:	Checked:	Size:	Scale:
5	15/01/2018	TC	MS	A3	1:250,000
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3	Llanfaethlu
4	Llanfachraeth
5	Parc Cybi
6	Valley
7	Dalar Hir
8	Ty Du
9	Cae Canol-dydd
10	Cors Gwawr



Legend

- Order Limits for the purposes of DCO (Refer to figure 2-1 in chapter 2 for details)
- Disposal Site
- Potential zone of influence for marine water quality (Disposal Site)
- Potential zone of influence for marine water quality (WNDA site)

Special Protection Area (SPA) and Ramsar

- Dee Estuary/ Aber Dyfrdwy (Sandwich Tern)
- Mersey Narrows and North Wirral Foreshore (Common Tern)

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Client: HORIZON NUCLEAR POWER

Project: Wylfa Newydd Project

Title: SPAs and Ramsar sites screened into the assessment for passage populations (pursuant to Regulation 5(2)(g))

Figure: 20

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ROYAL HASKONINGDHV
Marlborough House
Marlborough Crescent
Newcastle-upon-Tyne, NE1 4EE
+44 (0)191 211 1300
www.royalhaskoningdhv.com

Royal HaskoningDHV
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Table E1 Qualifying features of SPAs, pSPAs and Ramsar (bird) sites considered in the Stage 1 Screening exercise, with those features for which the potential for LSE has been determined (and therefore requiring Stage 2 assessment) identified in bold text

Morwenoliaid Ynys Môn / Anglesey Terns SPA - Wales (UK9013061) Distance from WNDA – 0km Distance from ZOI (marine water quality) – 0km
Qualifying features: - **A194 Arctic tern (Sterna paradisaea)** - **A191 Sandwich tern (Sterna sandvicensis)** - **A192 Roseate tern (Sterna dougallii)** - **A193 Common tern (Sterna hirundo)**
Glannau Ynys Gybi / Holy Island Coast SPA - Wales (UK9013101) Distance from WNDA – 13.1km Distance from ZOI (air quality (combustion plant)) – 0km
Qualifying features: - **A346 Red-billed chough (Pyrrhocorax pyrrhocorax)**
Ynys Seiriol / Puffin Island SPA - Wales (UK9020285) Distance from WNDA –30.2km Distance from ZOI – 25km
Qualifying features: - **A017 Great cormorant (Phalacrocorax carbo)**
Glannau Aberdaron and Ynys Enlli / Aberdaron Coast Bardsey Island SPA - Wales (UK9013121) Distance from WNDA – 63.3km Distance from ZOI (marine water quality) – 59.3km
Qualifying features: - **A013 Manx shearwater (Puffinus puffinus)** - **A346 Red-billed chough (Pyrrhocorax pyrrhocorax)**
Mynydd Cilan, Trwyn y Wylfa ac Ynysoedd Sant Tudwal / Mynydd Cilan, Trwyn y Wylfa and the St. Tudwal Islands SPA - Wales (UK9020282) Distance from WNDA – 65.1km Distance from ZOI (air quality (combustion plant)) – 52.2km
Qualifying features: - **A346 Red-billed chough (Pyrrhocorax pyrrhocorax)**
Aber Afen Dyfrdwy / Dee Estuary SPA and Ramsar site – Wales / England (UK9013011) Distance from WNDA – 60.2km Distance from ZOI (marine water quality) – 65.7km
Qualifying features: - A157 Bar-tailed godwit (Limosa lapponica)

- A193 Common tern (Sterna hirundo) - A195 Little tern (Sterna albifrons) - **A191 Sandwich tern (Sterna sandvicensis)** - A162 Common redshank (Tringa totanus) - A048 Shelduck (Tadorna tadorna) - A052 Teal (Anas crecca) - A054 Pintail (Anas acuta) - A130 Oystercatcher (Haematopus ostralegus) - A141 Grey Plover (Pluvialis squatarola) - A143 Knot (Calidris canutus) - A672 Dunlin (Calidris alpina alpina) - A616 Black-tailed godwit (Limosa limosa icelandica) - A160 Eurasian curlew (Numenius arquata) - WATR Waterbird assemblage of international importance
Sgomer, Gogwm a moroedd Benfro / Skomer, Skokholm and the seas off Pembrokeshire / SPA – Wales (UK9014051) Distance from WNDA – 187.1km Distance from ZOI (marine water quality) – 182.8km
Qualifying features: - **A013 Manx shearwater (Puffinus puffinus)** - A014 Storm Petrel (Hydrobates pelagicus) - A183 Lesser black-backed gull (Larus fuscus) - A204 Puffin (Fratercula arctica) - A222 Short-eared owl (Asio flammeus) - A346 Red-billed chough (Pyrrhocorax pyrrhocorax) - SBA Seabird assemblage of international importance
Grassholm SPA – Wales (UK9014041) Distance from WNDA – 194.8km Distance from ZOI (marine water quality) – 190.8km
Qualifying features: - **A016 Gannet (Morus bassanus)**
Mersey Narrows and North Wirral Foreshore SPA and Ramsar site – England (UK9020287) Distance from WNDA – 82km Distance from ZOI (marine water quality) – 77.3km
Qualifying features: - A157 Bar-tailed godwit (Limosa lapponica) - **A193 Common tern (Sterna hirundo)** - A143 Knot (Calidris canutus) - Little gull (Hydrocoloeus minutus) - WATR Waterbird assemblage of international importance

Ribble and Alt Estuaries SPA and Ramsar site – England (UK9005103) Distance from WNDA – 87.6km Distance from ZOI (marine water quality) – 82.5km
Qualifying features: - A151 Ruff (Philomachus pugnax) - A193 Common tern (Sterna hirundo) - A037 Bewick's Swan (Cygnus columbianus bewickii) - A038 Whooper Swan (Cygnus cygnus) - A140 Golden Plover (Pluvialis apricaria) - A157 Bar-tailed godwit (Limosa lapponica) - **A183 Lesser black-backed gull (Larus fuscus)** - A143 Ringed Plover (Charadrius hiaticula) - A144 Sanderling (Calidris alba) - A162 Redshank (Tringa totanus) - A040 Pink-footed Goose (Anser brachyrhynchus) - A048 Shelduck (Tadorna tadorna) - A050 Wigeon (Anas penelope) - A052 Teal (Anas crecca) - A054 Pintail (Anas acuta) - A130 Oystercatcher (Haematopus ostralegus) - A141 Grey Plover (Pluvialis squatarola) - A143 Knot (Calidris canutus) - A672 Dunlin (Calidris alpina alpina) - A616 Black-tailed godwit (Limosa limosa icelandica) - SBA Seabird assemblage of international importance - WATR Waterbird assemblage of international importance
Morecambe Bay SPA and Ramsar site – England (UK9005081) Distance from WNDA – 106.1km Distance from ZOI (marine water quality) – 102.3km
- A195 Little tern (Sterna albifrons) - A191 Sandwich tern (Sterna sandvicensis) - A040 Pink-footed goose (Anser brachyrhynchus) - A048 Common shelduck (Tadorna tadorna) - A054 Northern pintail (Anas acuta) - A130 Oystercatcher (Haematopus ostralegus) - A141 Grey Plover (Pluvialis squatarola) - A143 Ringed plover (Charadrius hiaticula) - A144 Sanderling (Calidris alba) - A160 Eurasian curlew (Numenius arquata) - A157 Bar-tailed godwit (Limosa lapponica) - A140 Golden plover (Pluvialis apricaria) - A169 Ruddy turnstone (Arenaria interpres)

- A143 Red knot (Calidris canutus) - A149 Dunlin (Calidris alpina) - A162 Common redshank (Tringa totanus) - **SBA Seabird assemblage of international importance (lesser black-backed gull as part of the the Morecambe Bay and Duddon Estuary pSPA; see below)** - WATR Waterbird assemblage of international importance)
Morecambe Bay and Duddon Estuary SPA – England Distance from WNDA – 106.1km Distance from ZOI (marine water quality) – 101.1km
Qualifying features: - A038 Whooper swan (Cygnus cygnus) - Little egret (Egretta garzetta) - A140 Golden plover (Pluvialis apricaria) - A157 Bar-tailed godwit (Limosa lapponica) - A151 Ruff (Philomachus pugnax) - Mediterranean gull (Larus melancephalus) - A195 Little tern (Sterna albifrons) - A191 Sandwich tern (Sterna sandvicensis) - A193 Common tern (Sterna hirundo) - A040 Pink-footed Goose (Anser brachyrhynchus) - A048 Shelduck (Tadorna tadorna) - A054 Pintail (Anas acuta) - A130 Oystercatcher (Haematopus ostralegus) - A141 Grey Plover (Pluvialis squatarola) - A143 Ringed plover (Charadrius hiaticula) - A160 Eurasian curlew (Numenius arquata) - A156 Black-tailed godwit (Limosa limosa) - A169 Turnstone (Arenaria interpres) - A143 Red knot (Calidris canutus) - A144 Sanderling (Calidris alba) - A149 Dunlin (Calidris alpina) - A162 Common redshank (Tringa totanus) - **A183 Lesser black-backed gull (Larus fuscus)** - A184 Herring gull (Larus argentatus) - **SBA Seabird assemblage of international importance (lesser black-backed gull)** - WATR Waterbird assemblage of international importance)
Bowland Fells SPA - England (UK9005151) Distance from WNDA – 128.8km Distance from ZOI (marine water quality) – 123.7km
Qualifying features: - **A183 Lesser black-backed gull (Larus fuscus)** - A082 Hen harrier (Circus cyaneus)

- A098 Merlin (Falco columbarius)
Lambay Island SPA - Ireland (004069) Distance from WNDA – 99km Distance from ZOI (marine water quality) – 93.8km
Qualifying features: - **A009 Fulmar (Fulmarus glacialis)** - A017 Great cormorant (Phalacrocorax carbo) - A018 Shag (Phalacrocorax aristotelis) - A043 Greylag goose (Anser anser) - **A183 Lesser black-backed gull (Larus fuscus)** - A184 Herring gull (Larus argentatus) - A188 Kittiwake (Rissa tridactyla) - **A199 Guillemot (Uria aalge)** - A200 Razorbill (Alca torda) - **A204 Puffin (Fratercula arctica)**
Ireland's Eye SPA - Ireland (004117) Distance from WNDA – 102.8km Distance from ZOI (marine water quality) – 97.8km
Qualifying features: - A017 Great cormorant (Phalacrocorax carbo) - A184 Herring gull (Larus argentatus) - A188 Kittiwake (Rissa tridactyla) - **A199 Guillemot (Uria aalge)** - A200 Razorbill (Alca torda)
East Coast Marine pSPA – Northern Ireland (UK9020320) Distance from WNDA – 117km Distance from ZOI (marine water quality) – 112km
Qualifying features: - Great crested grebe (Podiceps cristatus) - Red-throated diver (Gavia stellata) - A191 Sandwich tern (Sterna sandvicensis) - A193 Common tern (Sterna hirundo) - A194 Arctic tern (Sterna paradisaea) - **A013 Manx shearwater (Puffinus puffinus)** - Eider (Somateria mollissima)
Copeland Islands SPA – Ireland (UK9020291) Distance from WNDA – 154.4km Distance from ZOI (marine water quality) – 149.5km
Qualifying features: - A194 Arctic tern (Sterna paradisaea)

- **A013 Manx shearwater (Puffinus puffinus)**
Saltee Islands SPA - Ireland (004002) Distance from WNDA – 197.5km Distance from ZOI (marine water quality) – 186km
Qualifying features: - **A009 Fulmar (Fulmarus glacialis)** - **A016 Gannet (Morus bassanus)** - A017 Great cormorant (Phalacrocorax carbo) - A018 Shag (Phalacrocorax aristotelis) - A183 Lesser black-backed gull (Larus fuscus) - A184 Herring gull (Larus argentatus) - A188 Kittiwake (Rissa tridactyla) - A199 Guillemot (Uria aalge) - A200 Razorbill (Alca torda) - A204 Puffin (Fratercula arctica)
Rathlin Island SPA – Northern Ireland (UK9020011) Distance from WNDA – 231.3km Distance from ZOI (marine water quality) – 226.2km
Qualifying features: - A103 Peregrine (Falco peregrinus) - A199 Guillemot (Uria aalge) - A200 Razorbill (Alca torda) - A188 Kittiwake (Rissa tridactyla) - **SBA Seabird assemblage of international importance (including A009 Fulmar (Fulmarus glacialis))**
Horn Head to Fanad Head SPA – Ireland (004194) Distance from WNDA – 279.7km Distance from ZOI (marine water quality) – 274.7km
Qualifying features: - **A009 Fulmar (Fulmarus glacialis)** - A017 Great cormorant (Phalacrocorax carbo) - A018 Shag (Phalacrocorax aristotelis) - A045 Greenland barnacle goose (Branta leucopsis) - A103 Peregrine (Falco peregrinus) - A188 Kittiwake (Rissa tridactyla) - A199 Guillemot (Uria aalge) - A200 Razorbill (Alca torda) - A346 Red-billed chough (Pyrrhocorax pyrrhocorax) - A395 Greenland White-fronted goose (Anser albifrons flavirostris)
West Donegal Coast SPA – Ireland (004150)

Distance from WNDA – 297.7km Distance from ZOI (marine water quality) – 302.7km
Qualifying features: - **A009 Fulmar (Fulmarus glacialis)** - A017 Great cormorant (Phalacrocorax carbo) - A018 Shag (Phalacrocorax aristotelis) - A103 Peregrine (Falco peregrinus) - A184 Herring gull (Larus argentatus) - A188 Kittiwake (Rissa tridactyla) - A200 Razorbill (Alca torda) - A346 Red-billed chough (Pyrrhocorax pyrrhocorax)
Tory Island SPA – Ireland (004073) Distance from WNDA – 314.5km Distance from ZOI (marine water quality) – 309.5km
Qualifying features: - **A009 Fulmar (Fulmarus glacialis)** - A122 Corncrake (Crex crex) - A200 Razorbill (Alca torda) - A204 Puffin (Fratercula arctica)
Ailsa Craig SPA – Scotland (UK9003091) Distance from WNDA – 205.2km Distance from ZOI (marine water quality) – 200.2km
Qualifying features: - **A016 Gannet (Morus bassanus)** - A183 Lesser black-backed gull (Larus fuscus) - SBA Seabird assemblage of international importance

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Appendix F HRA screening matrices

F1 **Appendix F** contains the HRA screening matrices for the Project (in its entirety) in accordance with the structure and format specified in PINS Advice Note 10. The Appendix is stuctured as follows:

- **appendix F.1**: HRA screening matrices for SACs and cSAC are titled **F1.1 to F1.22**.
- **appendix F.2**: HRA screening matrices for SPAs and pSPAs are titled **F2.1 to F2.23**.
- **appendix F.3**: HRA screening matrices for Ramsar sites are titled **F3.1 to F3.5**.

F2 Following the above HRA screening matrices, **appendix F.4** contains a further series of screening matrices which present the outcomes of the Stage 1 Screening exercise undertaken for the purposes of this Shadow HRA specifically for the activities subject to the Environmental Permit and Marine Licence applications. These screening matrices are provided to assist NRW in undertaking its HRA of these applications (i.e. to enable the outcome of the Stage 1 Screening exercise to be identified for each individual application in isolation from the wider and combined effects of the Project).

F3 The matrices in **appendix F.4** are designed to enable a direct reference to be made from the various Shadow HRA signposting documents prepared in support of the Environmental Permit and Marine Licence applications to the conclusions of the Stage 1 Screening exercise.

F4 The likely significant in-combination effects of the activities covered by the Environmental Permit and Marine Licence applications with all other elements of the Project are presented in screening matrices in **appendices F.1**, **F.2** an**d F.3**.

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Planning Inspectorate

Advice Note 10

Habitats Regulations Assessment

Appendix F.1: Screening Matrices for SACs and cSACs

Potential Effects

Potential effects upon the European Designated Sites[6] which are considered within the submitted Shadow HRA report for the Project are provided in the table below.

[6] As defined in Advice Note 10.

Effects considered within the screening matrices (refer to chapter 5 for further detail)

Designation	Effects described in submission information	Presented in screening matrices as
All qualifying sites (and features) screened in to the assessment	• Potential disturbance effects of noise and vibration during activities. • Potential effects from changes in visual stimuli (including lighting) associated with the proposed works.	• Changes in visual and acoustic stimuli
	• Potential effects from reduction in physical footprint of the activity concerned as a result of permanent or temporary works.	• Land take, including seabed or intertidal land
	• Potential effects due to changes in marine water quality from substances released either directly or indirectly into the marine environment.	• Changes in marine water quality
	• Potential effects from changes to the chemical composition of surface water and groundwater, including sedimentation, changes to water turbidity and the re-suspension of sediment-bound contaminants.	• Changes in terrestrial water quality
	• Potential effects from changes to hydrology and hydrogeology on land, including changes to the flow and drainage of water, increased risks associated with flooding and sediment dynamics, and effects of and on the local water supply.	• Changes in surface and groundwater hydrology
	• Potential effects on terrestrial and marine ecology due to increased competition from Invasive Non-Native Species (INNS).	• Introduction of Invasive Non-Native Species
	• Potential effects from radiation emanating from the Power Station during operation	• Change in radiation dose levels

	and includes radiological contamination of the air, water or terrestrial environment.	
	• Potential effects from non-radiological changes in air quality associated with the construction and operation of the Project (e.g. dust, construction plant emissions).	• Change in air quality
	• Potential effects due to changes to the physical coastline as a result of marine and coastal works. This includes the implications for habitat functionality of local coastal erosion and accretion, and the release and dispersal of suspended sediments.	• Alteration of coastal processes and hydro-dynamics
	• Potential effects from direct interactions (collisions) with infrastructure or machinery associated with the Project. This includes indirect effects through entrainment / entrapment of prey species for marine mammals and birds.	• Physical interaction between species and Project infra-structure

STAGE 1: SCREENING MATRICES FOR SACs AND cSACs

The European Designated Sites included within the screening assessment are:

- Gogledd Môn Forol/North Anglesey Marine cSAC - Wales (UK0030398)
- Bae Cemlyn/Cemlyn Bay SAC - Wales (UK0030114)
- Glannau Ynys Gybi/Holy Island Coast SAC - Wales (UK0013046)
- Llyn Dinam SAC - Wales (UK0030186)
- Corsydd Môn/Anglesey Fens SAC - Wales (UK0012884)
- Afon Gwyrfai a Llyn Cwellyn SAC - Wales (UK0030046)
- Pen Llyn a'r Sarnau/Llyn Peninsula and the Sarnau SAC - Wales (UK0013117)
- Gorllewin Cymru Forol/West Wales Marine cSAC - Wales/England (UK0030397)
- Afon Eden – Cors Goch Trawsfynydd SAC - Wales (UK0030075)
- Afon Dyfrdwy a Llyn Tegid/River Dee and Bala Lake SAC Wales/England (UK0030252)
- Bae Ceredigion/Cardigan Bay SAC - Wales (UK0012712)
- Afon Teifi/River Teifi SAC - Wales (UK0012670)
- Dynesfeydd Môr Hafren/Bristol Channel Approaches cSAC - Wales/England (UK0030396)
- Sir Benfro Forol/Pembrokeshire Marine SAC - Wales (UK0013116)

- North Channel cSAC - Northern Ireland (UK0030399)
- Murlough SAC – Northern Ireland (UK0016612)
- Strangford Lough SAC – Northern Ireland (UK0016618)
- The Maidens SAC - Northern Ireland (UK0030384)
- Rockabill to Dalkey SAC - Ireland (IE003000)
- Lambay Island SAC – Ireland (IE0000204)
- Slaney River Valley SAC – Ireland (IE0000781)
- Saltee Islands SAC – Ireland (IE0000707)

In addition to the above, Y Fenai a Bae Conwy/Menai Strait and Conway Bay SAC (UK0030202), Coedydd Aber SAC (UK0030118) and Mynydd Helygain/Halkyn Mountain SAC (UK0030163) were considered in the Stage 1 Screening assessment on the basis that these European Designated Sites are partly within the ZOI for emissions from road traffic. However, as evidenced in table 5-1, these three European Designated Sites were screened out on the basis that the 'emissions from road traffic' effects of the Project on them would be insignificant. As these European Designated Sites do not have the potential to be affected by any other effect pathway, they not included within the screening matrices presented in this appendix.

The complete list of qualifying interest features for each screened in European Designated Site is presented in appendix C. This includes the qualifying features of SACs and cSACs considered in the Stage 1 Screening exercise, with those features for which the potential for LSE has been determined (and therefore requiring Stage 2 assessment) identified in bold text. Only the qualifying features identified in bold text are carried into the screening matrices presented in this appendix (appendix F).

Evidence for, or against, likely significant effects on European Designated Site(s) and their qualifying feature(s) is detailed within the footnotes to the screening matrices below. The screening matrices follow the requirements and structure set out in appendix 1 to Advice Note 10.

Matrix Key:

✓ = Likely significant effect **cannot** be excluded

✖ = Likely significant effect **can** be excluded

C = construction

O = operation

D = decommissioning

Where effects are not applicable to a particular feature they are greyed out and an explanation is provided as to why the effect is not relevant.

HRA Screening Matrix F1.1: Gogledd Môn Forol/North Anglesey Marine cSAC

Name of European site and designation: Gogledd Môn Forol/North Anglesey Marine cSAC																																		
EU Code: UK0030398																																		
Distance to NSIP: 0km																																		
European site features	**Likely effects of NSIP**																																	
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species (INNS)**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*
S1351 Harbour porpoise (Phocoena phocoena)	✓ **a**	✓ **a**	✓ **a**	✓ **b**	✓ **b**	✗ **b**	✓ **c**	✓ **c**	✓ **c**	✗ **d**	✗ **d**	✗ **d**	✗ **e**	✗ **e**	✗ **e**	✗ **f**	✗ **f**	✗ **f**	✗ **g**	✗ **g**	✗ **g**	✗ **h**	✗ **h**	✗ **h**	✓ **i**	✓ **i**	✗ **i**	✓ **j**	✓ **j**	✗ **j**	✓ **k**	✓ **k**	✓ **k**

Evidence supporting conclusions:

a. Harbour porpoise have the potential to be affected, particularly by underwater noise, therefore LSE could not be excluded (table 5.2 item 1).

b. There is the potential for change and/or loss of supporting habitat for harbour porpoise as a result of the Project within the marine area of the Wylfa Newydd Development Area and at the Disposal Site, which could have a potential effect on prey species for this species. The footprint of the Project is within the Gogledd Môn Forol/North Anglesey Marine cSAC and the loss of supporting habitat for harbour porpoise has the potential to result in LSE (table 5.2 item 2) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

c. Changes to marine water quality could affect prey species and the ability of harbour porpoise to effectively forage for prey. This species has the potential to be affected by the project as they may be foraging within the ZOI, therefore LSE could not be excluded (table 5.2 item 3).

d. The Project is expected to give rise to changes in terrestrial water quality. However, no direct effect will occur on this cSAC site (table 5.2 item 4). Indirect effects due to consequent effects on marine water quality are considered in Note c (changes to marine water quality).

e. Changes in surface and groundwater hydrology associated with the Project are unlikely to affect this site due to the fact that it is not sensitive to such changes; hence no LSE was concluded (table 5.2 item 5). Indirect effects on harbour porpoise prey species are considered in Note c (changes to marine water quality).

f. The Project has the potential to result in the spread of INNS in the marine environment. The works have the potential to both spread INNS that are already established on the site and elsewhere in the UK and result in the import of INNS from outside the UK. In order to manage these risks, Horizon will prepare one (or more) Biosecurity Risk Assessment(s) and Method Statement(s) to cover all activities. Horizon will implement a monitoring programme for non-native species. This will include observational surveys on structures that may provide suitable substrate for non-native species. Surveys will record presence/abundance of non-native species, with reporting in agreement with NRW. Monitoring survey requirements for specific sites will be set out in the sub-CoCPs where relevant. Where new presence of INNS is discovered, Biosecurity Risk Assessments and Method Statements will be reviewed and amended where necessary. Wherever appropriate, workers will

be given an activity specific tool-box talk from an ECoW. This will include photographs of any INNS species known to be present on a site.

For the marine environment, an initial pre-construction survey will be undertaken and regular surveys will begin once construction of the breakwaters and MOLF is completed. The frequency and extent of monitoring will reduce over time, particularly once the MOLF is no longer operational. The ongoing requirement for monitoring will be regularly reviewed and agreed with NRW. Given these measures, LSE has been excluded in this context (table 5.2 item 6).

g. A Stage 1 Screening exercise has been undertaken in support of an Environmental Permit application under Radiological Substances Regulations (RSR) (WN0908-HZCON-PAC-REP-00003). The results of the assessment demonstrate that the total dose rate predicted to arise due to the proposed Wylfa Newydd Power Station (alone and in combination with other sources) is below the relevant thresholds for the protection of European Designated Sites. Given these findings, LSE can be excluded due to change in radiation dose levels (table 5.2 item 7).

h. The precautionary ZOI identified for air quality overlaps with the marine environment. However, the area potentially affected is insignificant in the context of the scale of European Designated Sites designated for marine mammals and the Management Units and foraging ranges used to identify European Designated Sites to be considered in the screening assessment. In addition, marine mammals are unlikely to be sensitive to the potential effect of the Project on air quality and, consequently, no LSE was concluded for this screening category (table 5.2 item 8).

i. LSE could not be excluded for this site. Potential effects on the site include changes to current flows and sediment transport pathways, which could affect habitats within this designated site and prey species for harbour porpoise (table 5.2 item 9) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

j. Mitigation has been proposed to reduce the risk of entrainment/entrapment of .harbour porpoise. Prey species for harbour porpoise however could be affected, resulting in a potential indirect impact on harbour porpoise. In addition, vessel strike has the potential to affect harbour porpoise. As a consequence, LSE could not be excluded at this stage (table 5.2 item 10) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

k. The potential for a LSIE with other plans and projects has been identified for this European Designated Site (appendix B).

HRA Screening Matrix F1.2: Bae Cemlyn/Cemlyn Bay SAC

Name of European site and designation: Bae Cemlyn/Cemlyn Bay SAC																																		
EU Code: UK0030114																																		
Distance to NSIP: 0.1km																																		
European site features	**Likely effects of NSIP**																																	
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*
H1150 Coastal lagoons	**a**	**a**	**a**	**× b**	**× b**	**× b**	**✓ c**	**✓ c**	**✓ c**	**✓ d**	**✓ d**	**× d**	**✓ e**	**✓ e**	**× e**	**× f**	**× f**	**× f**	**× g**	**× g**	**× g**	**✓ h**	**✓ h**	**× h**	**✓ i**	**✓ i**	**× i**	**j**	**j**	**j**	**✓ k**	**✓ k**	**✓ k**
H1220 Perennial vegetation of stony banks	**a**	**a**	**a**	**× b**	**× b**	**× b**	**✓ c**	**✓ c**	**✓ c**	**✓ d**	**✓ d**	**× d**	**✓ e**	**✓ e**	**× e**	**× f**	**× f**	**× f**	**× g**	**× g**	**× g**	**✓ h**	**✓ h**	**× h**	**✓ i**	**✓ i**	**× i**	**j**	**j**	**j**	**✓ k**	**✓ k**	**✓ k**

Evidence supporting conclusions:

a. The qualifying habitat features of the SAC are not sensitive to changes in visual and acoustic stimuli and, therefore, no impact pathway exists (table 5.1 item 1).

b. There would be no land-take in either the terrestrial or marine environment that would affect a qualifying habitat feature of the SAC and, therefore, LSE can be excluded (table 5.1 item 2).

c. For the coastal lagoon and perennial vegetation of stony banks, the potential for LSE due to changes in marine water quality could not be excluded at this stage (table 5.1 item 3a).

d. Changes to terrestrial water quality could have an effect on marine water quality. There is also a direct fluvial discharge to Cemlyn lagoon via Nant Cemlyn. Therefore, LSE could not be excluded for this SAC (table 5.1 item 4a) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

e. This SAC is within the precautionary ZOI for surface and groundwater hydrology, and therefore has the potential to be affected by the Project due to changes in groundwater and surface water (table 5.1 item 5a) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

f. The Project has the potential to result in the spread of INNS in the terrestrial or marine environment. The works have the potential to both spread INNS that are already established on the site and elsewhere in the UK and result in the import of INNS from outside the UK. In order to manage these risks, Horizon will prepare one (or more) Biosecurity Risk Assessment(s) and Method Statement(s) to cover all activities. Horizon will implement a monitoring programme for non-native species. This will include observational surveys on structures that may provide suitable substrate for non-native species. Surveys will record presence/abundance of non-native species, with reporting in agreement with NRW. Monitoring survey requirements for specific sites will be set out in the sub-CoCPs where relevant. Where new presence of INNS is discovered, Biosecurity Risk Assessments and Method Statements will be reviewed and amended where necessary. Wherever appropriate, workers will be given an activity specific tool-box talk from an ECoW. This will include photographs of any INNS species known to be present on a site.

For the marine environment, an initial pre-construction survey will be undertaken and regular surveys will begin once construction of the breakwaters and MOLF is completed. The frequency and extent of monitoring will reduce over time,

particularly once the MOLF is no longer operational. The ongoing requirement for monitoring will be regularly reviewed and agreed with NRW. Given these measures, LSE has been excluded in this context (table 5.1 item 6).

g. A Stage 1 Screening exercise has been undertaken in support of an Environmental Permit application under RSR (WN0908-HZCON-PAC-REP-00003). The results of the assessment demonstrate that the total dose rate predicted to arise due to the proposed Wylfa Newydd Power Station (alone and in combination with other sources) is below the relevant thresholds for the protection of European Designated Sites. Given these findings, LSE can be excluded due to change in radiation dose levels (table 5.1 item 7).

h. This SAC designated for terrestrial habitat within the precautionary ZOI for air quality has the potential to be affected by the Project. The screening assessment concludes that there is potential for LSEs due to NOx emissions from construction plant, machinery and vessels and dust generation. For the operating Power Station, operational combustion activity (standby generator commissioning, standby generator routine testing, LOOP/LOCA scenario, maximum boiler use, MEEG testing, MEEG operation and long-term NOx emissions) could affect the SAC (table 5.1 item 8a). LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

i. This SAC is within the ZOI for changes in coastal processes and hydrodynamics and has the potential to be affected by such changes. Consequently, LSE could not be excluded for this SAC (table 5.1 item 9a) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

j. The qualifying habitat features of the SAC are not sensitive to physical interaction between species and Project infrastructure and, therefore, no impact pathway exists (table 5.1 item 10).

k. The potential for a LSIE with other plans and projects has been identified for this European Designated Site (appendix B).

HRA Screening Matrix F1.3: Glannau Ynys Gybi/Holy Island Coast SAC

Name of European site and designation: Glannau Ynys Gybi/Holy Island Coast SAC																																		
EU Code: UK0013046																																		
Distance to NSIP: 2.2km																																		
European site features	**Likely effects of NSIP**																																	
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*
H1230 Vegetated sea cliffs of the Atlantic and Baltic coasts	**a**	**a**	**a**	**×** **b**	**×** **b**	**×** **b**	**×** **c**	**×** **c**	**×** **c**	**×** **d**	**×** **d**	**×** **d**	**×** **e**	**×** **e**	**×** **e**	**×** **f**	**×** **f**	**×** **f**	**×** **g**	**×** **g**	**×** **g**	**✓** **h**	**✓** **h**	**×** **h**	**×** **i**	**×** **i**	**×** **i**	**j**	**j**	**j**	**✓** **k**	**✓** **k**	**×** **k**
H4010 Northern Atlantic wet heaths with Erica tetralix	**a**	**a**	**a**	**×** **b**	**×** **b**	**×** **b**	**×** **c**	**×** **c**	**×** **c**	**×** **d**	**×** **d**	**×** **d**	**×** **e**	**×** **e**	**×** **e**	**×** **f**	**×** **f**	**×** **f**	**×** **g**	**×** **g**	**×** **g**	**✓** **h**	**✓** **h**	**×** **h**	**×** **i**	**×** **i**	**×** **i**	**j**	**j**	**j**	**✓** **k**	**✓** **k**	**×** **k**
H4030	**a**	**a**	**a**	**×**	**×**	**×**	**×**	**×**	**×**	**×**	**×**	**×**	**×**	**×**	**×**	**×**	**×**	**×**	**×**	**×**	**×**	**✓**	**✓**	**×**	**×**	**×**	**×**	**j**	**j**	**j**	**✓**	**✓**	**×**

European dry heaths				**b**	**b**	**b**	**c**	**c**	**c**	**d**	**d**	**d**	**e**	**e**	**e**	**f**	**f**	**f**	**g**	**g**	**g**	**h**	**h**	**h**	**i**	**i**	**i**				**k**	**k**	**k**

Evidence supporting conclusions:

a. The qualifying habitat features of the SAC are not sensitive to changes in visual and acoustic stimuli and, therefore, no impact pathway exists (table 5.1 item 1).

b. There would be no land-take in either the terrestrial or marine environment that would affect qualifying habitat features of this SAC and, therefore, LSE can be excluded (table 5.1 item 2).

c. It was concluded that there is no potential for changes to marine water quality to affect the terrestrial and freshwater habitats of this SAC due to the lack of an impact pathway and, therefore, LSE can be excluded (table 5.1 item 3b).

d. The Project is expected to give rise to changes in terrestrial water quality. However, no effect is considered likely to occur on SACs with terrestrial or freshwater qualifying features due to the separation distance between such European Designated Sites and the Project and, therefore, LSE can be excluded (table 5.1 item 4b).

e. This SAC is outside the ZOI (for surface and groundwater hydrology) and, therefore, no LSE due to changes in groundwater and surface water is predicted and, therefore, LSE can be excluded (table 5.1 item 5b).

f. The Project has the potential to result in the spread of INNS in the terrestrial or marine environment. The works have the potential to both spread INNS that are already established on the site and elsewhere in the UK and result in the import of INNS from outside the UK. In order to manage these risks, Horizon will prepare one (or more) Biosecurity Risk Assessment(s) and Method Statement(s) to cover all activities. Horizon will implement a monitoring programme for non-native species. This will include observational surveys on structures that may provide suitable substrate for non-native species. Surveys will record presence/abundance of non-native species, with reporting in agreement with NRW. Monitoring survey requirements for specific sites will be set out in the sub-CoCPs where relevant. Where new presence of INNS is discovered, Biosecurity Risk Assessments and Method Statements will be reviewed and amended where necessary. Wherever appropriate, workers will be given an activity specific tool-box talk from an ECoW. This will include photographs of any INNS species known to be present on a site.

For the marine environment, an initial pre-construction survey will be undertaken and regular surveys will begin once construction of the breakwaters and MOLF is completed. The frequency and extent of monitoring will reduce over time, particularly once the MOLF is no longer operational. The ongoing requirement for monitoring will be regularly reviewed and agreed with NRW. Given these measures, LSE has been excluded in this context (table 5.1 item 6).

g. A Stage 1 Screening exercise has been undertaken in support of an Environmental Permit application under RSR (WN0908-HZCON-PAC-REP-00003). The results of the assessment demonstrate that the total dose rate predicted to arise due to the proposed Wylfa Newydd Power Station (alone and in combination with other sources) is below the relevant thresholds for the protection of European Designated Sites. Given these findings, LSE can be excluded due to change in radiation dose levels (table 5.1 item 7).

h. This SAC within the precautionary ZOI for air quality has the potential to be affected by the Project. The screening assessment concluded that there is potential for LSE due to NOx emissions from construction plant, machinery and vessels. For the operating Power Station, operational combustion activity (MEEG operation and LOOP/LOCA scenario) could affect the SAC (table 5.1 item 8a). LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

i. The modelling studies (summarised in chapter 7) clearly predict no detectable change in coastal processes due to the Project beyond 5km of the Wylfa Newydd Development Area or beyond 5km of the Holyhead North dredged material disposal site. Consequently, it was concluded that there is no potential for LSE on this SAC (table 5.1 item 9b).

j. The qualifying habitat features of the SAC are not sensitive to physical interaction between species and Project infrastructure and, therefore, no impact pathway exists (table 5.1 item 10).

k. The potential for a LSIE with other plans and projects has been identified for this European Designated Site (appendix B), albeit not for the decommissioning phase because LSE has been excluded for this European Designated Site for the Project alone in this phase.

HRA Screening Matrix F1.4: Llyn Dinam SAC

Name of European site and designation: Llyn Dinam SAC																																	
EU Code: UK0030186																																	
Distance to NSIP: 1km																																	
European site features	**Likely effects of NSIP**																																
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*
H3150 Natural eutrophic lakes with Magnopotamion or Hydrocharition-type vegetation	**a**	**a**	**a**	**× b**	**× b**	**× b**	**× c**	**× c**	**× c**	**× d**	**× d**	**× d**	**× e**	**× e**	**× e**	**× f**	**× f**	**× f**	**× g**	**× g**	**× g**	**✓ h**	**✓ h**	**× h**	**i**	**i**	**i**	**j**	**j**	**j**	**✓ k**	**✓ k**	**× k**

Evidence supporting conclusions:

a. The qualifying habitat feature of this SAC is not sensitive to changes in visual and acoustic stimuli and, therefore, no impact pathway exists (table 5.1 item 1).

b. There would be no land-take in either the terrestrial or marine environment that would affect a qualifying habitat feature of this SAC and, therefore, LSE can be excluded (table 5.1 item 2).

c. It was concluded that there is no potential for changes to marine water quality to affect the terrestrial and freshwater habitats of this SAC due to the lack of an impact pathway and, therefore, LSE can be excluded (table 5.1 item 3b).

d. The Project is expected to give rise to changes in terrestrial water quality. However, no effect is considered likely to occur on SACs with terrestrial or freshwater qualifying features due to the separation distance between such European Designated Sites and the Project and, therefore, LSE can be excluded (table 5.1 item 4b).

e. This SAC is outside the ZOI (for surface and groundwater hydrology) and, therefore, LSE can be excluded (table 5.1 item 5b).

f. The Project has the potential to result in the spread of INNS in the terrestrial environment. The works have the potential to both spread INNS that are already established on the site and elsewhere in the UK and result in the import of INNS from outside the UK. In order to manage these risks, Horizon will prepare one (or more) Biosecurity Risk Assessment(s) and Method Statement(s) to cover all activities. Horizon will implement a monitoring programme for non-native species. This will include observational surveys on structures that may provide suitable substrate for non-native species. Surveys will record presence/abundance of non-native species, with reporting in agreement with NRW. Monitoring survey requirements for specific sites will be set out in the sub-CoCPs where relevant. Where new presence of INNS is discovered, Biosecurity Risk Assessments and Method Statements will be reviewed and amended where necessary. Wherever appropriate, workers will be given an activity specific tool-box talk from an ECoW. This will include photographs of any INNS species known to be present on a site (table 5.1 item 6).

g. A Stage 1 Screening exercise has been undertaken in support of an Environmental Permit application under RSR (WN0908-HZCON-PAC-REP-00003). The results of the assessment demonstrate that the total dose rate predicted to arise due to the proposed Wylfa Newydd Power Station (alone and in combination with other sources) is below the relevant thresholds for

the protection of European Designated Sites. Given these findings, LSE can be excluded due to change in radiation dose levels (table 5.1 item 7).

h. This SAC within the precautionary ZOI for air quality has the potential to be affected by the Project. The screening assessment concluded that there is potential for LSE due to NOx emissions from construction plant, machinery and vessels. For the operating Power Station, operational combustion activity (MEEG operation and LOOP/LOCA scenario) could affect the SAC (table 5.1 item 8a). LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

i. The qualifying habitat feature of this SAC is not sensitive to changes in coastal processes and hydrodynamics and, therefore, no impact pathway exists (table 5.1 item 9b).

j. The qualifying habitat features of the SAC are not sensitive to physical interaction between species and Project infrastructure and, therefore, no impact pathway exists (table 5.1 item 10).

k. The potential for a LSIE with other plans and projects has been identified for this European Designated Site (appendix B), albeit not for the decommissioning phase because LSE has been excluded for this European Designated Site for the Project alone in this phase.

HRA Screening Matrix F1.5: Corsydd Môn/Anglesey Fens SAC

Name of European site and designation: Corsydd Môn/Anglesey Fens SAC																																
EU Code: UK0012884																																
Distance to NSIP: 13.4km																																
European site features	**Likely effects of NSIP**																															
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*
H4010 Northern Atlantic wet heaths with Erica tetralix	**a**	**a**	**a**	**× c**	**× c**	**× c**	**d**	**d**	**d**	**✓ e**	**× e**	**× e**	**✓ f**	**✓ f**	**× f**	**× g**	**× g**	**× g**	**× h**	**× h**	**× h**	**× i**	**✓ i**	**× i**	**j**	**j**	**j**	**k**	**k**	**k**	**✓ l**	**✓ l**	**× l**
H6410 Molinia meadows on calcareous, peaty or	**a**	**a**	**a**	**× c**	**× c**	**× c**	**d**	**d**	**d**	**✓ e**	**× e**	**× e**	**✓ f**	**✓ f**	**× f**	**× g**	**× g**	**× g**	**× h**	**× h**	**× h**	**× i**	**✓ i**	**× i**	**j**	**j**	**j**	**k**	**k**	**k**	**✓ l**	**✓ l**	**× l**

clayey-silt-laden soils																															
H7210 Calcareous fens with Cladium mariscus and species of the Caricion davallianae	**a**	**a**	**a**	**× c**	**× c**	**× c**	**d**	**d**	**d**	**✓ e**	**× e**	**× e**	**✓ f**	**✓ f**	**× f**	**× g**	**× g**	**× g**	**× h**	**× h**	**× h**	**× i**	**✓ i**	**× i**	**j**	**j**	**j**	**k**	**k**	**k**	**✓ l**	**✓ l**	**× l**
H7230 Alkaline fens	**a**	**a**	**a**	**× c**	**× c**	**× c**	**d**	**d**	**d**	**✓ e**	**× e**	**× e**	**✓ f**	**✓ f**	**× f**	**× g**	**× g**	**× g**	**× h**	**× h**	**× h**	**× i**	**✓ i**	**× i**	**j**	**j**	**j**	**k**	**k**	**k**	**✓ l**	**✓ l**	**× l**
H3140 Hard oligo-mesotrophic waters with benthic vegetation of Chara spp.	**a**	**a**	**a**	**× c**	**× c**	**× c**	**d**	**d**	**d**	**✓ e**	**× e**	**× e**	**✓ f**	**✓ f**	**× f**	**× g**	**× g**	**× g**	**× h**	**× h**	**× h**	**× i**	**✓ i**	**× i**	**j**	**j**	**j**	**k**	**k**	**k**	**✓ l**	**✓ l**	**× l**
S1044 Southern damselfly (Coenagrion mercuriale)	**× b**	**× b**	**× b**	**× c**	**× c**	**× c**	**d**	**d**	**d**	**✓ e**	**× e**	**× e**	**✓ f**	**✓ f**	**× f**	**× g**	**× g**	**× g**	**× h**	**× h**	**× h**	**× i**	**✓ i**	**× i**	**j**	**j**	**j**	**k**	**k**	**k**	**✓ l**	**✓ l**	**× l**
S1065 Marsh fritillary butterfly (Euphydryas aurinia)	**× b**	**× b**	**× b**	**× c**	**× c**	**× c**	**d**	**d**	**d**	**✓ e**	**× e**	**× e**	**✓ f**	**✓ f**	**× f**	**× g**	**× g**	**× g**	**× h**	**× h**	**× h**	**× i**	**✓ i**	**× i**	**j**	**j**	**j**	**k**	**k**	**k**	**✓ l**	**✓ l**	**× l**

S1013 Geyer`s whorl snail (Vertigo geyeri)	✕ b	✕ b	✕ b	✕ c	✕ c	✕ c	d	d	d	✓ e	✕ e	✕ e	✓ f	✓ f	✕ f	✕ g	✕ g	✕ g	✕ h	✕ h	✕ h	✕ i	✓ i	✕ i	j	j	j	k	k	k	✓ l	✓ l	✕ l

Evidence supporting conclusions:

a. The qualifying habitat features of the SAC are not sensitive to changes in visual and acoustic stimuli and, therefore, no impact pathway exists (table 5.1 item 1).

b. The qualifying species of the SAC could theoretically be affected by changes to visual and acoustic stimuli. The SAC is, however, 14km distant from the Wylfa NewddNewydd Development Area and on this basis LSE can be excluded (table 5.1 item 1).

c. There would be no land-take in either the terrestrial or marine environment that would affect this qualifying feature of this SAC and, therefore, LSE can be excluded (table 5.1 item 2).

d. It was concluded that there is no potential for changes to marine water quality to affect the terrestrial and freshwater habitats of this SAC due to the lack of an impact pathway (table 5.1 item 3b).

e. The Project is expected to give rise to changes in terrestrial water quality. In this context, this European Designated Site has the potential to be affected during the construction works for the creation and enhancement of fen habitat at Cae Canol-dydd and Cors Gwawr. LSE could not, therefore, be excluded (table 5.1 item 4b).

f. This European Designated Site has the potential to be affected during the construction works for, and in the post-construction phase of, the creation and enhancement of fen habitat at Cae Canol-dydd and Cors Gwawr. LSE could not, therefore, be excluded (table 5.1 item 5b).

g. The Project has the potential to result in the spread of INNS in the terrestrial environment. The works have the potential to both spread INNS that are already established on the site and elsewhere in the UK and result in the import of INNS from outside the UK. In order to manage these risks, Horizon will prepare one (or more) Biosecurity Risk Assessment(s) and

Method Statement(s) to cover all activities. Horizon will implement a monitoring programme for non-native species. This will include observational surveys on structures that may provide suitable substrate for non-native species. Surveys will record presence/abundance of non-native species, with reporting in agreement with NRW. Monitoring survey requirements for specific sites will be set out in the sub-CoCPs where relevant. Where new presence of INNS is discovered, Biosecurity Risk Assessments and Method Statements will be reviewed and amended where necessary. Wherever appropriate, workers will be given an activity specific tool-box talk from an ECoW. This will include photographs of any INNS species known to be present on a site (table 5.1 item 6).

h. A Stage 1 Screening exercise has been undertaken in support of an Environmental Permit application under RSR (WN0908-HZCON-PAC-REP-00003). The results of the assessment demonstrate that the total dose rate predicted to arise due to the proposed Wylfa Newydd Power Station (alone and in combination with other sources) is below the relevant thresholds for the protection of European Designated Sites. Given these findings, LSE can be excluded due to change in radiation dose levels (table 5.1 item 7).

i. The screening assessment concluded that LSE can be excluded for emissions during the construction phase (table 5.1 item 8b). For the operating Power Station, operational combustion activity (MEEG operation and LOOP/LOCA scenario) could affect the SAC (table 5.1 item 8a). LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

j. This site does not contain any marine or coastal habitats and, therefore, no impact pathway exists (table 5.1 item 9b).

k. The qualifying habitat features of the SAC are not sensitive to physical interaction between species and Project infrastructure and, therefore, no impact pathway exists (table 5.1 item 10).

l. The potential for a LSIE with other plans and projects has been identified for this European Designated Site (appendix B), albeit not for the decommissioning phase because LSE has been excluded for this European Designated Site for the Project alone in this phase.

HRA Screening Matrix F1.6: Afon Gwyrfai a Llyn Cwellyn SAC

Name of European site and designation: Afon Gwyrfai a Llyn Cwellyn SAC																																
EU Code: UK0030046																																
Distance to NSIP: 22.5km																																
European site features	**Likely effects of NSIP**																															
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*
S1106 Atlantic salmon (Salmo salar)	✓ **a**	✓ **a**	✓ **a**	✗ **b**	✗ **b**	✗ **b**	✓ **c**	✓ **c**	✓ **c**	✗ **d**	✗ **d**	✗ **d**	✗ **e**	✗ **e**	✗ **e**	✗ **f**	✗ **f**	✗ **f**	✗ **g**	✗ **g**	✗ **g**	✗ **h**	✗ **h**	✗ **h**	✓ **i**	✓ **i**	✗ **i**	✓ **j**	✓ **j**	✗ **j**	✓ **k**	✓ **k**	✓ **k**

Evidence supporting conclusions:

a. Atlantic salmon have the potential to be affected by the Project, particularly by underwater noise as they migrate between rivers and feeding grounds in the North Atlantic. Hence LSE could not be excluded (table 5.3 item 1).

b. Atlantic salmon are not considered to be sensitive to intertidal or subtidal land-take due to the Project as they are migrating between rivers and feeding grounds in the North Atlantic (i.e. the habitat is not a supporting habitat for this species). Therefore it was concluded that there is not likely to be a LSE on this species due to land-take (table 5.3 item 2).

c. Changes to marine water quality could affect Atlantic salmon behaviour as they migrate between rivers and the adult feeding grounds. Therefore LSE could not be excluded (table 5.3 item 3).

d. The Project is expected to give rise to changes in terrestrial water quality. However, no direct effect will occur on Atlantic salmon (table 5.3 item 4). Indirect effects due to consequent effects on marine water quality are considered in Note c (changes to marine water quality).

e. Changes in surface and groundwater hydrology are unlikely to result in an effect pathway to SACs designated for Atlantic salmon; hence no LSE was concluded for this screening category (table 5.3 item 5).

f. The Project has the potential to result in the spread of INNS in the marine environment. The works have the potential to both spread INNS that are already established on the site and elsewhere in the UK and result in the import of INNS from outside the UK. In order to manage these risks, Horizon will prepare one (or more) Biosecurity Risk Assessment(s) and Method Statement(s) to cover all activities. Horizon will implement a monitoring programme for non-native species. This will include observational surveys on structures that may provide suitable substrate for non-native species. Surveys will record presence/abundance of non-native species, with reporting in agreement with NRW. Monitoring survey requirements for specific sites will be set out in the sub-CoCPs where relevant. Where new presence of INNS is discovered, Biosecurity Risk Assessments and Method Statements will be reviewed and amended where necessary. Wherever appropriate, workers will be given an activity specific tool-box talk from an ECoW. This will include photographs of any INNS species known to be present on a site.

For the marine environment, an initial pre-construction survey will be undertaken and regular surveys will begin once construction of the breakwaters and MOLF is completed. The frequency and extent of monitoring will reduce over time,

particularly once the MOLF is no longer operational. The ongoing requirement for monitoring will be regularly reviewed and agreed with NRW. Given these measures, LSE has been excluded in this context (table 5.3 item 6).

g. A Stage 1 Screening exercise has been undertaken in support of an Environmental Permit application under Radiological Substances Regulations (RSR) (WN0908-HZCON-PAC-REP-00003). The results of the assessment demonstrate that the total dose rate predicted to arise due to the proposed Wylfa Newydd Power Station (alone and in combination with other sources) is below the relevant thresholds for the protection of European Designated Sites. Given these findings, LSE can be excluded due to change in radiation dose levels (table 5.3 item 7).

h. The precautionary ZOI identified for air quality overlaps with the marine environment. However, the area potentially affected does not interact with European Designated Sites designated for .Atlantic salmon. In addition, Atlantic salmon are unlikely to be sensitive to the potential impact of the Project on air quality and, consequently, no LSE was concluded for this screening category (table 5.3 item 8).

i. LSE could not be excluded for this site during construction and operation. Although the SACs are unlikely to be directly affected, Atlantic salmon could be affected by changes in coastal processes as they migrate between rivers and feeding grounds. Potentially relevant effects include changes to current flows and sediment transport pathways (table 5.3 item 9). LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

j. Direct effects could occur, such entrapment within the circulating water intake. As a consequence, LSE could not be excluded (table 5.3 item 10) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

k. The potential for a LSIE with other plans and projects has been identified for this European Designated Site (appendix B).

HRA Screening Matrix F1.7: Pen Llyn a'r Sarnau/Llyn Peninsula and the Sarnau SAC

Name of European site and designation: Pen Llyn a'r Sarnau/Llyn Peninsula and the Sarnau SAC

EU Code: UK0013117

Distance to NSIP: 48.0km

European site features	**Likely effects of NSIP**																																
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*
S1364 Grey seal (Halichoerus grypus)	✓ a	✓ a	✓ a	✓ b	✓ b	✗ b	✓ c	✓ c	✓ c	✗ d	✗ d	✗ d	✗ e	✗ e	✗ e	✗ f	✗ f	✗ f	✗ g	✗ g	✗ g	✗ h	✗ h	✗ h	✓ i	✓ i	✗ i	✓ j	✓ j	✗ j	✓ k	✓ k	✓ k
S1349 Bottlenose dolphin (Tursiops truncatus)	✓ a	✓ a	✓ a	✓ b	✓ b	✗ b	✓ c	✓ c	✓ c	✗ d	✗ d	✗ d	✗ e	✗ e	✗ e	✗ f	✗ f	✗ f	✗ g	✗ g	✗ g	✗ h	✗ h	✗ h	✓ i	✓ i	✗ i	✓ j	✓ j	✗ j	✓ k	✓ k	✓ k

Evidence supporting conclusions:

a. Grey seal and bottlenose dolphin have the potential to be affected, particularly by underwater noise, therefore LSE could not be excluded (table 5.2 item 1).

b. There is the potential for change and/or loss of supporting habitat for grey seal and bottlenose dolphin as a result of the Project within the marine area of the Wylfa Newydd Development Area and the at Disposal Site, which could have a potential effect on prey species for these species. Although the potential for a LSE to arise on distant SACs is considered to be highly unlikely, a precautionary approach was taken and LSE was not excluded at this stage in the assessment (table 5.2 item 2) for construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

c. Changes to marine water quality could affect prey species and the ability of marine mammals to effectively forage for prey. Therefore LSE could not be excluded (table 5.2 item 3).

d. The Project is expected to give rise to changes in terrestrial water quality. However, no direct effect will occur on this SAC (table 5.2 item 4). Indirect effects due to consequent effects on marine water quality are considered in Note c (changes to marine water quality).

e. Changes in surface and groundwater hydrology associated with the Project are unlikely to affect this site due to the fact that these European Designated Sites are not sensitive to such changes; hence no LSE was concluded (table 5.2 item 5). Indirect effects on marine mammal prey species are considered in Note c (changes to marine water quality).

f. The Project has the potential to result in the spread of INNS in the marine environment. The works have the potential to both spread INNS that are already established on the site and elsewhere in the UK and result in the import of INNS from outside the UK. In order to manage these risks, Horizon will prepare one (or more) Biosecurity Risk Assessment(s) and Method Statement(s) to cover all activities. Horizon will implement a monitoring programme for non-native species. This will include observational surveys on structures that may provide suitable substrate for non-native species. Surveys will record presence/abundance of non-native species, with reporting in agreement with NRW. Monitoring survey requirements for specific sites will be set out in the sub-CoCPs where relevant. Where new presence of INNS is discovered, Biosecurity Risk Assessments and Method Statements will be reviewed and amended where necessary. Wherever appropriate, workers will

be given an activity specific tool-box talk from an ECoW. This will include photographs of any INNS species known to be present on a site.

For the marine environment, an initial pre-construction survey will be undertaken and regular surveys will begin once construction of the breakwaters and MOLF is completed. The frequency and extent of monitoring will reduce over time, particularly once the MOLF is no longer operational. The ongoing requirement for monitoring will be regularly reviewed and agreed with NRW. Given these measures, LSE has been excluded in this context (table 5.2 item 6).

g. A Stage 1 Screening exercise has been undertaken in support of an Environmental Permit application under Radiological Substances Regulations (RSR) (WN0908-HZCON-PAC-REP-00003). The results of the assessment demonstrate that the total dose rate predicted to arise due to the proposed Wylfa Newydd Power Station (alone and in combination with other sources) is below the relevant thresholds for the protection of European Designated Sites. Given these findings, LSE can be excluded due to change in radiation dose levels (table 5.2 item 7).

h. The precautionary ZOI identified for air quality overlaps with the marine environment. However, the area potentially affected is insignificant in the context of the scale of European Designated Sites designated for marine mammals and the Management Units and foraging ranges used to identify European Designated Sites to be considered in the screening assessment. In addition, marine mammals are unlikely to be sensitive to the potential effect of the Project on air quality and, consequently, no LSE was concluded for this screening category (table 5.2 item 8).

i. LSE could not be excluded for this site for construction and operation. Potential effects on the site include changes to current flows and sediment transport pathways, which could affect prey species for grey seal and bottlenose dolphin that are qualifying interest features of this site (table 5.2 item 9). LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

j. Mitigation has been proposed to reduce the risk of entrainment/entrapment of grey seal and bottlenose dolphin. Prey species for grey seal and bottlenose dolphin however could be affected, resulting in a potential indirect impact on grey seal and bottlenose dolphin. In addition, vessel strike has the potential to affect grey seal and bottlenose dolphin. As a consequence, LSE could not be excluded at this stage (table 5.2 item 10) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

k. The potential for a LSIE with other plans and projects has been identified for this European Designated Site (appendix B).

HRA Screening Matrix F1.8: Gorllewin Cymru Forol/West Wales Marine cSAC

Name of European site and designation: Gorllewin Cymru Forol/West Wales Marine cSAC																																		
EU Code: UK0030397																																		
Distance to NSIP: 48.8km																																		
European site features	**Likely effects of NSIP**																																	
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*
S1351 Harbour porpoise (Phocoena phocoena)	✓ **a**	✓ **a**	✓ **a**	✓ **b**	✓ **b**	✕ **b**	✓ **c**	✓ **c**	✓ **c**	✕ **d**	✕ **d**	✕ **d**	✕ **e**	✕ **e**	✕ **e**	✕ **f**	✕ **f**	✕ **f**	✕ **g**	✕ **g**	✕ **g**	✕ **h**	✕ **h**	✕ **h**	✓ **i**	✓ **i**	✕ **i**	✓ **j**	✓ **j**	✕ **j**	✓ **k**	✓ **k**	✓ **k**

Evidence supporting conclusions:

a. Harbour porpoise have the potential to be affected, particularly by underwater noise, therefore LSE could not be excluded (table 5.2 item 1).

b. There is the potential for change and/or loss of supporting habitat for harbour porpoise as a result of the Project within the marine area of the Wylfa Newydd Development Area and the at Disposal Site, which could have a potential effect on prey species for this species. (table 5.2 item 2) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

c. Changes to marine water quality could affect prey species and the ability of harbour porpoise to effectively forage for prey. This species has the potential to be affected by the project as they may be foraging within the ZOI, therefore LSE could not be excluded (table 5.2 item 3).

d. The Project is expected to give rise to changes in terrestrial water quality. However, no direct effect will occur on this cSAC site (table 5.2 item 4). Indirect effects due to consequent effects on marine water quality are considered in Note c (changes to marine water quality).

e. Changes in surface and groundwater hydrology associated with the Project are unlikely to affect this site due to the fact that it is not sensitive to such changes; hence no LSE was concluded (table 5.2 item 5). Indirect effects on harbour porpoise prey species are considered in Note c (changes to marine water quality).

f. The Project has the potential to result in the spread of INNS in the marine environment. The works have the potential to both spread INNS that are already established on the site and elsewhere in the UK and result in the import of INNS from outside the UK. In order to manage these risks, Horizon will prepare one (or more) Biosecurity Risk Assessment(s) and Method Statement(s) to cover all activities. Horizon will implement a monitoring programme for non-native species. This will include observational surveys on structures that may provide suitable substrate for non-native species. Surveys will record presence/abundance of non-native species, with reporting in agreement with NRW. Monitoring survey requirements for specific sites will be set out in the sub-CoCPs where relevant. Where new presence of INNS is discovered, Biosecurity Risk Assessments and Method Statements will be reviewed and amended where necessary. Wherever appropriate, workers will be given an activity specific tool-box talk from an ECoW. This will include photographs of any INNS species known to be present on a site.

For the marine environment, an initial pre-construction survey will be undertaken and regular surveys will begin once construction of the breakwaters and MOLF is completed. The frequency and extent of monitoring will reduce over time, particularly once the MOLF is no longer operational. The ongoing requirement for monitoring will be regularly reviewed and agreed with NRW. Given these measures, LSE has been excluded in this context (table 5.2 item 6).

g. A Stage 1 Screening exercise has been undertaken in support of an Environmental Permit application under Radiological Substances Regulations (RSR) (WN0908-HZCON-PAC-REP-00003). The results of the assessment demonstrate that the total dose rate predicted to arise due to the proposed Wylfa Newydd Power Station (alone and in combination with other sources) is below the relevant thresholds for the protection of European Designated Sites. Given these findings, LSE can be excluded due to change in radiation dose levels (table 5.2 item 7).

h. The precautionary ZOI identified for air quality overlaps with the marine environment. However, the area potentially affected is insignificant in the context of the scale of European Designated Sites designated for marine mammals and the Management Units and foraging ranges used to identify European Designated Sites to be considered in the screening assessment. In addition, marine mammals are unlikely to be sensitive to the potential effect of the Project on air quality and, consequently, no LSE was concluded for this screening category (table 5.2 item 8).

i. LSE could not be excluded for this site for construction and operation. Potential effects on the site include changes to current flows and sediment transport pathways, which could affect prey species for grey seal and bottlenose dolphin that are qualifying interest features of this site (table 5.2 item 9). LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

j. Mitigation has been proposed to reduce the risk of entrainment/entrapment of harbour porpoise. Prey species for harbour porpoise however could be affected, resulting in a potential indirect impact on harbour porpoise. In addition, vessel strike has the potential to affect harbour porpoise. As a consequence, LSE could not be excluded at this stage (table 5.2 item 10) for construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

k. The potential for a LSIE with other plans and projects has been identified for this European Designated Site (appendix B).

HRA Screening Matrix F1.9: Afon Eden – Cors Goch Trawsfynydd SAC

Name of European site and designation: Afon Eden – Cors Goch Trawsfynydd SAC																																
EU Code: UK0030075																																
Distance to NSIP: 137km																																
European site features	**Likely effects of NSIP**																															
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*
S1106 Atlantic salmon (Salmo salar)	✓ **a**	✓ **a**	✓ **a**	✗ **b**	✗ **b**	✗ **b**	✓ **c**	✓ **c**	✓ **c**	✗ **d**	✗ **d**	✗ **d**	✗ **e**	✗ **e**	✗ **e**	✗ **f**	✗ **f**	✗ **f**	✗ **g**	✗ **g**	✗ **g**	✗ **h**	✗ **h**	✗ **h**	✓ **i**	✓ **i**	✗ **i**	✓ **j**	✓ **j**	✗ **j**	✓ **k**	✓ **k**	✓ **k**
S1029 Freshwater pearl mussel (Margarit-ifera margarit-ifera)	✓ **a**	✓ **a**	✓ **a**	✗ **b**	✗ **b**	✗ **b**	✓ **c**	✓ **c**	✓ **c**	✗ **d**	✗ **d**	✗ **d**	✗ **e**	✗ **e**	✗ **e**	✗ **f**	✗ **f**	✗ **f**	✗ **g**	✗ **g**	✗ **g**	✗ **h**	✗ **h**	✗ **h**	✓ **i**	✓ **i**	✗ **i**	✓ **j**	✓ **j**	✗ **j**	✓ **k**	✓ **k**	✓ **k**

Evidence supporting conclusions:

a. Atlantic salmon have the potential to be affected by the Project, particularly by underwater noise as they migrate between rivers and feeding grounds in the North Atlantic. Hence LSE could not be excluded (table 5.3 item 1). Freshwater pearl mussel can potentially only be affected via an effect on their host species (sea trout in the case of the Afon Eden – Cors Goch Trawsfynydd SAC freshwater pearl mussel population) (i.e. no direct effect on freshwater pearl mussel can occur).

b. Atlantic salmon are not considered to be sensitive to intertidal or subtidal land-take due to the Project as they are migrating between rivers and feeding grounds in the North Atlantic (i.e. the habitat is not a supporting habitat for this species). Therefore it was concluded that there is not likely to be a LSE on this species due to land-take (table 5.3 item 2).

c. Changes to marine water quality could affect Atlantic salmon behaviour as they migrate between rivers and the adult feeding grounds. Therefore LSE could not be excluded (table 5.3 item 3).

d. The Project is expected to give rise to changes in terrestrial water quality. However, no direct effect will occur on Atlantic salmon (table 5.3 item 4). Indirect effects due to consequent effects on marine water quality are considered in Note c (changes to marine water quality).

e. Changes in surface and groundwater hydrology are unlikely to result in an effect pathway to SACs designated for Atlantic salmon; hence no LSE was concluded for this screening category (table 5.3 item 5).

f. The Project has the potential to result in the spread of INNS in the marine environment. The works have the potential to both spread INNS that are already established on the site and elsewhere in the UK and result in the import of INNS from outside the UK. In order to manage these risks, Horizon will prepare one (or more) Biosecurity Risk Assessment(s) and Method Statement(s) to cover all activities. Horizon will implement a monitoring programme for non-native species. This will include observational surveys on structures that may provide suitable substrate for non-native species. Surveys will record presence/abundance of non-native species, with reporting in agreement with NRW. Monitoring survey requirements for specific sites will be set out in the sub-CoCPs where relevant. Where new presence of INNS is discovered, Biosecurity Risk Assessments and Method Statements will be reviewed and amended where necessary. Wherever appropriate, workers will be given an activity specific tool-box talk from an ECoW. This will include photographs of any INNS species known to be present on a site.

For the marine environment, an initial pre-construction survey will be undertaken and regular surveys will begin once construction of the breakwaters and MOLF is completed. The frequency and extent of monitoring will reduce over time, particularly once the MOLF is no longer operational. The ongoing requirement for monitoring will be regularly reviewed and agreed with NRW. Given these measures, LSE has been excluded in this context (table 5.3 item 6).

g. A Stage 1 Screening exercise has been undertaken in support of an Environmental Permit application under Radiological Substances Regulations (RSR) (WN0908-HZCON-PAC-REP-00003). The results of the assessment demonstrate that the total dose rate predicted to arise due to the proposed Wylfa Newydd Power Station (alone and in combination with other sources) is below the relevant thresholds for the protection of European Designated Sites. Given these findings, LSE can be excluded due to change in radiation dose levels (table 5.3 item 7).

h. The precautionary ZOI identified for air quality overlaps with the marine environment. However, the area potentially affected does not interact with European Designated Sites designated for Atlantic salmon. In addition, Atlantic salmon are unlikely to be sensitive to the potential impact of the Project on air quality and, consequently, no LSE was concluded for this screening category (table 5.3 item 8).

i. LSE could not be excluded for this site during construction and operation. Although the SACs are unlikely to be directly affected, Atlantic salmon could be affected by changes in coastal processes as they migrate between rivers and feeding grounds. Potentially relevant effects include changes to current flows and sediment transport pathways (table 5.3 item 9). LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

j. Direct effects could occur, such entrapment within the circulating water intake. As a consequence, LSE could not be excluded (table 5.3 item 10) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

k. The potential for a LSIE with other plans and projects has been identified for this European Designated Site (appendix B).

HRA Screening Matrix F1.10: Afon Dyfrdwy a Llyn Tegid/River Dee and Bala Lake SAC

Name of European site and designation: Afon Dyfrdwy a Llyn Tegid/River Dee and Bala Lake SAC																																		
EU Code: UK0030252																																		
Distance to NSIP: 102km																																		
European site features	**Likely effects of NSIP**																																	
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*
S1106 Atlantic salmon (Salmo salar)	✓ **a**	✓ **a**	✓ **a**	✗ **b**	✗ **b**	✗ **b**	✓ **c**	✓ **c**	✓ **c**	✗ **d**	✗ **d**	✗ **d**	✗ **e**	✗ **e**	✗ **e**	✗ **f**	✗ **f**	✗ **f**	✗ **g**	✗ **g**	✗ **g**	✗ **h**	✗ **h**	✗ **h**	✓ **i**	✓ **i**	✗ **i**	✓ **j**	✓ **j**	✗ **j**	✓ **k**	✓ **k**	✓ **k**

Evidence supporting conclusions:

a. Atlantic salmon have the potential to be affected by the Project, particularly by underwater noise as they migrate between rivers and feeding grounds in the North Atlantic. Hence LSE could not be excluded (table 5.3 item 1).

b. Atlantic salmon are not considered to be sensitive to intertidal or subtidal land-take due to the Project as they are migrating between rivers and feeding grounds in the North Atlantic (i.e. the habitat is not a supporting habitat for this species). Therefore it was concluded that there is not likely to be a LSE on this species due to land-take (table 5.3 item 2).

c. Changes to marine water quality could affect Atlantic salmon behaviour as they migrate between rivers and the adult feeding grounds. Therefore LSE could not be excluded (table 5.3 item 3).

d. The Project is expected to give rise to changes in terrestrial water quality. However, no direct effect will occur on Atlantic salmon (table 5.3 item 4). Indirect effects due to consequent effects on marine water quality are considered in Note c (changes to marine water quality).

e. Changes in surface and groundwater hydrology are unlikely to result in an effect pathway to SACs designated for Atlantic salmon; hence no LSE was concluded for this screening category (table 5.3 item 5).

f. The Project has the potential to result in the spread of INNS in the marine environment. The works have the potential to both spread INNS that are already established on the site and elsewhere in the UK and result in the import of INNS from outside the UK. In order to manage these risks, Horizon will prepare one (or more) Biosecurity Risk Assessment(s) and Method Statement(s) to cover all activities. Horizon will implement a monitoring programme for non-native species. This will include observational surveys on structures that may provide suitable substrate for non-native species. Surveys will record presence/abundance of non-native species, with reporting in agreement with NRW. Monitoring survey requirements for specific sites will be set out in the sub-CoCPs where relevant. Where new presence of INNS is discovered, Biosecurity Risk Assessments and Method Statements will be reviewed and amended where necessary. Wherever appropriate, workers will be given an activity specific tool-box talk from an ECoW. This will include photographs of any INNS species known to be present on a site.

For the marine environment, an initial pre-construction survey will be undertaken and regular surveys will begin once construction of the breakwaters and MOLF is completed. The frequency and extent of monitoring will reduce over time,

particularly once the MOLF is no longer operational. The ongoing requirement for monitoring will be regularly reviewed and agreed with NRW. Given these measures, LSE has been excluded in this context (table 5.3 item 6).

g. A Stage 1 Screening exercise has been undertaken in support of an Environmental Permit application under Radiological Substances Regulations (RSR) (WN0908-HZCON-PAC-REP-00003). The results of the assessment demonstrate that the total dose rate predicted to arise due to the proposed Wylfa Newydd Power Station (alone and in combination with other sources) is below the relevant thresholds for the protection of European Designated Sites. Given these findings, LSE can be excluded due to change in radiation dose levels (table 5.3 item 7).

h. The precautionary ZOI identified for air quality overlaps with the marine environment. However, the area potentially affected does not interact with European Designated Sites designated for Atlantic salmon. In addition, Atlantic salmon are unlikely to be sensitive to the potential impact of the Project on air quality and, consequently, no LSE was concluded for this screening category (table 5.3 item 8).

i. LSE could not be excluded for this site during construction and operation. Although the SACs are unlikely to be directly affected, Atlantic salmon could be affected by changes in coastal processes as they migrate between rivers and feeding grounds. Potentially relevant effects include changes to current flows and sediment transport pathways (table 5.3 item 9). LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

j. Direct effects could occur, such entrapment within the circulating water intake. As a consequence, LSE could not be excluded (table 5.3 item 10) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

k. The potential for a LSIE with other plans and projects has been identified for this European Designated Site (appendix B).

HRA Screening Matrix F1.11: Bae Ceredigion/Cardigan Bay SAC

Name of European site and designation: Bae Ceredigion/Cardigan Bay SAC																																
EU Code: UK0012712																																
Distance to NSIP: 109.0km																																
European site features	**Likely effects of NSIP**																															
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*
S1349 Bottlenose dolphin (Tursiops truncatus)	✓ **a**	✓ **a**	✓ **a**	✓ **b**	✓ **b**	✕ **b**	✓ **c**	✓ **c**	✓ **c**	✕ **d**	✕ **d**	✕ **d**	✕ **e**	✕ **e**	✕ **e**	✕ **f**	✕ **f**	✕ **f**	✕ **g**	✕ **g**	✕ **g**	✕ **h**	✕ **h**	✕ **h**	✓ **i**	✓ **i**	✕ **i**	✓ **j**	✓ **j**	✕ **j**	✓ **k**	✓ **k**	✓ **k**
S1364 Grey seal (Halichoerus grypus)	✓ **a**	✓ **a**	✓ **a**	✓ **b**	✓ **b**	✕ **b**	✓ **c**	✓ **c**	✓ **c**	✕ **d**	✕ **d**	✕ **d**	✕ **e**	✕ **e**	✕ **e**	✕ **f**	✕ **f**	✕ **f**	✕ **g**	✕ **g**	✕ **g**	✕ **h**	✕ **h**	✕ **h**	✓ **i**	✓ **i**	✕ **i**	✓ **j**	✓ **j**	✕ **j**	✓ **k**	✓ **k**	✓ **k**

Evidence supporting conclusions:

a. Grey seal and bottlenose dolphin have the potential to be affected, particularly by underwater noise, therefore LSE could not be excluded (table 5.2 item 1).

b. There is the potential for change and/or loss of supporting habitat for marine mammal interest features grey seal and bottlenose dolphin as a result of the Project within the marine area of the Wylfa Newydd Development Area and the at Disposal Site, which could have a potential effect on prey species for marine mammals.these species. Although the potential for a LSE to arise on distant SACs and cSACs is considered to be highly unlikely, a precautionary approach was taken and LSE was not excluded at this stage in the assessment (table 5.2 item 2) for construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

c. Changes to marine water quality could affect prey species and the ability of marine mammals to effectively forage for prey. Therefore LSE could not be excluded (table 5.2 item 3).

d. The Project is expected to give rise to changes in terrestrial water quality. However, no direct effect will occur on this SAC (table 5.2 item 4). Indirect effects due to consequent effects on marine water quality are considered in Note c (changes to marine water quality).

e. Changes in surface and groundwater hydrology associated with the Project are unlikely to affect this site due to the fact that these European Designated Sites are not sensitive to such changes; hence no LSE was concluded (table 5.2 item 5). Indirect effects on marine mammal prey species are considered in Note c (changes to marine water quality).

f. The Project has the potential to result in the spread of INNS in the marine environment. The works have the potential to both spread INNS that are already established on the site and elsewhere in the UK and result in the import of INNS from outside the UK. In order to manage these risks, Horizon will prepare one (or more) Biosecurity Risk Assessment(s) and Method Statement(s) to cover all activities. Horizon will implement a monitoring programme for non-native species. This will include observational surveys on structures that may provide suitable substrate for non-native species. Surveys will record presence/abundance of non-native species, with reporting in agreement with NRW. Monitoring survey requirements for specific sites will be set out in the sub-CoCPs where relevant. Where new presence of INNS is discovered, Biosecurity Risk Assessments and Method Statements will be reviewed and amended where necessary. Wherever appropriate, workers will

be given an activity specific tool-box talk from an ECoW. This will include photographs of any INNS species known to be present on a site.

For the marine environment, an initial pre-construction survey will be undertaken and regular surveys will begin once construction of the breakwaters and MOLF is completed. The frequency and extent of monitoring will reduce over time, particularly once the MOLF is no longer operational. The ongoing requirement for monitoring will be regularly reviewed and agreed with NRW. Given these measures, LSE has been excluded in this context (table 5.2 item 6).

g. A Stage 1 Screening exercise has been undertaken in support of an Environmental Permit application under Radiological Substances Regulations (RSR) (WN0908-HZCON-PAC-REP-00003). The results of the assessment demonstrate that the total dose rate predicted to arise due to the proposed Wylfa Newydd Power Station (alone and in combination with other sources) is below the relevant thresholds for the protection of European Designated Sites. Given these findings, LSE can be excluded due to change in radiation dose levels (table 5.2 item 7).

h. The precautionary ZOI identified for air quality overlaps with the marine environment. However, the area potentially affected is insignificant in the context of the scale of European Designated Sites designated for marine mammals and the Management Units and foraging ranges used to identify European Designated Sites to be considered in the screening assessment. In addition, marine mammals are unlikely to be sensitive to the potential effect of the Project on air quality and, consequently, no LSE was concluded for this screening category (table 5.2 item 8).

i. LSE could not be excluded for this site for construction and operation. Potential effects on the site include changes to current flows and sediment transport pathways, which could affect prey species for grey seal and bottlenose dolphin that are qualifying interest features of this site (table 5.2 item 9). LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

j. Mitigation has been proposed to reduce the risk of entrainment/entrapment of grey seal and bottlenose dolphin. Prey species for grey seal and bottlenose dolphin however could be affected, resulting in a potential indirect impact on grey seal and bottlenose dolphin. In addition, vessel strike has the potential to affect grey seal and bottlenose dolphin. As a consequence, LSE could not be excluded at this stage (table 5.2 item 10) for construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

k. The potential for a LSIE with other plans and projects has been identified for this European Designated Site (appendix B).

HRA Screening Matrix F1.12: Afon Teifi/River Teifi SAC

Name of European site and designation: Afon Teifi/River Teifi SAC																																		
EU Code: UK0012670																																		
Distance to NSIP: 155km																																		
European site features	**Likely effects of NSIP**																																	
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*
S1106 Atlantic salmon (Salmo salar)	✓ **a**	✓ **a**	✓ **a**	✗ **b**	✗ **b**	✗ **b**	✓ **c**	✓ **c**	✓ **c**	✗ **d**	✗ **d**	✗ **d**	✗ **e**	✗ **e**	✗ **e**	✗ **f**	✗ **f**	✗ **f**	✗ **g**	✗ **g**	✗ **g**	✗ **h**	✗ **h**	✗ **h**	✓ **i**	✓ **i**	✗ **i**	✓ **j**	✓ **j**	✗ **j**	✓ **k**	✓ **k**	✓ **k**

Evidence supporting conclusions:

a. Atlantic salmon have the potential to be affected by the Project, particularly by underwater noise as they migrate between rivers and feeding grounds in the North Atlantic. Hence LSE could not be excluded (table 5.3 item 1).

b. Atlantic salmon are not considered to be sensitive to intertidal or subtidal land-take due to the Project as they are migrating between rivers and feeding grounds in the North Atlantic (i.e. the habitat is not a supporting habitat for this species). Therefore it was concluded that there is not likely to be a LSE on this species due to land-take (table 5.3 item 2).

c. Changes to marine water quality could affect Atlantic salmon behaviour as they migrate between rivers and the adult feeding grounds. Therefore LSE could not be excluded (table 5.3 item 3).

d. The Project is expected to give rise to changes in terrestrial water quality. However, no direct effect will occur on Atlantic salmon (table 5.3 item 4). Indirect effects due to consequent effects on marine water quality are considered in Note c (changes to marine water quality).

e. Changes in surface and groundwater hydrology are unlikely to result in an effect pathway to SACs designated for Atlantic salmon; hence no LSE was concluded for this screening category (table 5.3 item 5).

f. The Project has the potential to result in the spread of INNS in the marine environment. The works have the potential to both spread INNS that are already established on the site and elsewhere in the UK and result in the import of INNS from outside the UK. In order to manage these risks, Horizon will prepare one (or more) Biosecurity Risk Assessment(s) and Method Statement(s) to cover all activities. Horizon will implement a monitoring programme for non-native species. This will include observational surveys on structures that may provide suitable substrate for non-native species. Surveys will record presence/abundance of non-native species, with reporting in agreement with NRW. Monitoring survey requirements for specific sites will be set out in the sub-CoCPs where relevant. Where new presence of INNS is discovered, Biosecurity Risk Assessments and Method Statements will be reviewed and amended where necessary. Wherever appropriate, workers will be given an activity specific tool-box talk from an ECoW. This will include photographs of any INNS species known to be present on a site.

For the marine environment, an initial pre-construction survey will be undertaken and regular surveys will begin once construction of the breakwaters and MOLF is completed. The frequency and extent of monitoring will reduce over time,

particularly once the MOLF is no longer operational. The ongoing requirement for monitoring will be regularly reviewed and agreed with NRW. Given these measures, LSE has been excluded in this context (table 5.3 item 6).

g. A Stage 1 Screening exercise has been undertaken in support of an Environmental Permit application under Radiological Substances Regulations (RSR) (WN0908-HZCON-PAC-REP-00003). The results of the assessment demonstrate that the total dose rate predicted to arise due to the proposed Wylfa Newydd Power Station (alone and in combination with other sources) is below the relevant thresholds for the protection of European Designated Sites. Given these findings, LSE can be excluded due to change in radiation dose levels (table 5.3 item 7).

h. The precautionary ZOI identified for air quality overlaps with the marine environment. However, the area potentially affected does not interact with European Designated Sites designated for Atlantic salmon. In addition, Atlantic salmon are unlikely to be sensitive to the potential impact of the Project on air quality and, consequently, no LSE was concluded for this screening category (table 5.3 item 8).

i. LSE could not be excluded for this site during construction and operation. Although the SACs are unlikely to be directly affected, Atlantic salmon could be affected by changes in coastal processes as they migrate between rivers and feeding grounds. Potentially relevant effects include changes to current flows and sediment transport pathways (table 5.3 item 9). LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

j. Direct effects could occur, such entrapment within the circulating water intake. As a consequence, LSE could not be excluded (table 5.3 item 10) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

k. The potential for a LSIE with other plans and projects has been identified for this European Designated Site (appendix B).

HRA Screening Matrix F1.13: Dynesfeydd Môr Hafren/Bristol Channel Approaches cSAC

Name of European site and designation: Dynesfeydd Môr Hafren/Bristol Channel Approaches cSAC																																		
EU Code: UK0030396																																		
Distance to NSIP: 185.2km																																		
European site features	**Likely effects of NSIP**																																	
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*
S1351 Harbour porpoise (Phocoena phocoena)	✓ **a**	✓ **a**	✓ **a**	✓ **b**	✓ **b**	✕ **b**	✓ **c**	✓ **c**	✓ **c**	✕ **d**	✕ **d**	✕ **d**	✕ **e**	✕ **e**	✕ **e**	✕ **f**	✕ **f**	✕ **f**	✕ **g**	✕ **g**	✕ **g**	✕ **h**	✕ **h**	✕ **h**	✓ **i**	✓ **i**	✕ **i**	✓ **j**	✓ **j**	✕ **j**	✓ **k**	✓ **k**	✓ **k**

Evidence supporting conclusions:

a. Harbour porpoise have the potential to be affected, particularly by underwater noise, therefore LSE could not be excluded (table 5.2 item 1).

b. There is the potential for change and/or loss of supporting habitat for harbour porpoise as a result of the Project within the marine area of the Wylfa Newydd Development Area and the at Disposal Site, which could have a potential effect on prey species for this species. (table 5.2 item 2) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

c. Changes to marine water quality could affect prey species and the ability of harbour porpoise to effectively forage for prey. This species has the potential to be affected by the project as they may be foraging within the ZOI, therefore LSE could not be excluded (table 5.2 item 3).

d. The Project is expected to give rise to changes in terrestrial water quality. However, no direct effect will occur on this cSAC site (table 5.2 item 4). Indirect effects due to consequent effects on marine water quality are considered in Note c (changes to marine water quality).

e. Changes in surface and groundwater hydrology associated with the Project are unlikely to affect this site due to the fact that it is not sensitive to such changes; hence no LSE was concluded (table 5.2 item 5). Indirect effects on harbour porpoise prey species are considered in Note c (changes to marine water quality).

f. The Project has the potential to result in the spread of INNS in the marine environment. The works have the potential to both spread INNS that are already established on the site and elsewhere in the UK and result in the import of INNS from outside the UK. In order to manage these risks, Horizon will prepare one (or more) Biosecurity Risk Assessment(s) and Method Statement(s) to cover all activities. Horizon will implement a monitoring programme for non-native species. This will include observational surveys on structures that may provide suitable substrate for non-native species. Surveys will record presence/abundance of non-native species, with reporting in agreement with NRW. Monitoring survey requirements for specific sites will be set out in the sub-CoCPs where relevant. Where new presence of INNS is discovered, Biosecurity Risk Assessments and Method Statements will be reviewed and amended where necessary. Wherever appropriate, workers will be given an activity specific tool-box talk from an ECoW. This will include photographs of any INNS species known to be present on a site.

For the marine environment, an initial pre-construction survey will be undertaken and regular surveys will begin once construction of the breakwaters and MOLF is completed. The frequency and extent of monitoring will reduce over time, particularly once the MOLF is no longer operational. The ongoing requirement for monitoring will be regularly reviewed and agreed with NRW. Given these measures, LSE has been excluded in this context (table 5.2 item 6).

g. A Stage 1 Screening exercise has been undertaken in support of an Environmental Permit application under Radiological Substances Regulations (RSR) (WN0908-HZCON-PAC-REP-00003). The results of the assessment demonstrate that the total dose rate predicted to arise due to the proposed Wylfa Newydd Power Station (alone and in combination with other sources) is below the relevant thresholds for the protection of European Designated Sites. Given these findings, LSE can be excluded due to change in radiation dose levels (table 5.2 item 7).

h. The precautionary ZOI identified for air quality overlaps with the marine environment. However, the area potentially affected is insignificant in the context of the scale of European Designated Sites designated for marine mammals and the Management Units and foraging ranges used to identify European Designated Sites to be considered in the screening assessment. In addition, marine mammals are unlikely to be sensitive to the potential effect of the Project on air quality and, consequently, no LSE was concluded for this screening category (table 5.2 item 8).

i. LSE could not be excluded for this site for construction and operation. Potential effects on the site include changes to current flows and sediment transport pathways, which could affect prey species for grey seal and bottlenose dolphin that are qualifying interest features of this site (table 5.2 item 9). LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

j. Mitigation has been proposed to reduce the risk of entrainment/entrapment of harbour porpoise. Prey species for harbour porpoise however could be affected, resulting in a potential indirect impact on harbour porpoise. In addition, vessel strike has the potential to affect harbour porpoise. As a consequence, LSE could not be excluded at this stage (table 5.2 item 10) for construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

k. The potential for a LSIE with other plans and projects has been identified for this European Designated Site (appendix B).

HRA Screening Matrix F1.14: Sir Benfro Forol/Pembrokeshire Marine SAC

Name of European site and designation: Sir Benfro Forol/Pembrokeshire Marine SAC																																
EU Code: UK0013116																																
Distance to NSIP: 186.5km																																
European site features	**Likely effects of NSIP**																															
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and groundwater hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*
S1364 Grey seal (Halichoerus grypus)	✓ **a**	✓ **a**	✓ **a**	✓ **b**	✓ **b**	✕ **b**	✓ **c**	✓ **c**	✓ **c**	✕ **d**	✕ **d**	✕ **d**	✕ **e**	✕ **e**	✕ **e**	✕ **f**	✕ **f**	✕ **f**	✕ **g**	✕ **g**	✕ **g**	✕ **h**	✕ **h**	✕ **h**	✓ **i**	✓ **i**	✕ **i**	✓ **j**	✓ **j**	✕ **j**	✓ **k**	✓ **k**	✓ **k**

Evidence supporting conclusions:

a. Grey seal has the potential to be affected, particularly by underwater noise, therefore LSE could not be excluded (table 5.2 item 1).

b. There is the potential for change and/or loss of supporting habitat for grey seal as a result of the Project within the marine area of the Wylfa Newydd Development Area and the at Disposal Site, which could have a potential effect on prey species for these species. Although the potential for a LSE to arise on distant SACs is considered to be highly unlikely, a precautionary approach was taken and LSE was not excluded at this stage in the assessment (table 5.2 item 2) for construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

c. Changes to marine water quality could affect prey species and the ability of marine mammals to effectively forage for prey. Therefore LSE could not be excluded (table 5.2 item 3).

d. The Project is expected to give rise to changes in terrestrial water quality. However, no direct effect will occur on this SAC (table 5.2 item 4). Indirect effects due to consequent effects on marine water quality are considered in Note c (changes to marine water quality).

e. Changes in surface and groundwater hydrology associated with the Project are unlikely to affect this site due to the fact that these European Designated Sites are not sensitive to such changes; hence no LSE was concluded (table 5.2 item 5). Indirect effects on marine mammal prey species are considered in Note c (changes to marine water quality).

f. The Project has the potential to result in the spread of INNS in the marine environment. The works have the potential to both spread INNS that are already established on the site and elsewhere in the UK and result in the import of INNS from outside the UK. In order to manage these risks, Horizon will prepare one (or more) Biosecurity Risk Assessment(s) and Method Statement(s) to cover all activities. Horizon will implement a monitoring programme for non-native species. This will include observational surveys on structures that may provide suitable substrate for non-native species. Surveys will record presence/abundance of non-native species, with reporting in agreement with NRW. Monitoring survey requirements for specific sites will be set out in the sub-CoCPs where relevant. Where new presence of INNS is discovered, Biosecurity Risk Assessments and Method Statements will be reviewed and amended where necessary. Wherever appropriate, workers will be given an activity specific tool-box talk from an ECoW. This will include photographs of any INNS species known to be present on a site.

For the marine environment, an initial pre-construction survey will be undertaken and regular surveys will begin once construction of the breakwaters and MOLF is completed. The frequency and extent of monitoring will reduce over time, particularly once the MOLF is no longer operational. The ongoing requirement for monitoring will be regularly reviewed and agreed with NRW. Given these measures, LSE has been excluded in this context (table 5.2 item 6).

g. A Stage 1 Screening exercise has been undertaken in support of an Environmental Permit application under Radiological Substances Regulations (RSR) (WN0908-HZCON-PAC-REP-00003). The results of the assessment demonstrate that the total dose rate predicted to arise due to the proposed Wylfa Newydd Power Station (alone and in combination with other sources) is below the relevant thresholds for the protection of European Designated Sites. Given these findings, LSE can be excluded due to change in radiation dose levels (table 5.2 item 7).

h. The precautionary ZOI identified for air quality overlaps with the marine environment. However, the area potentially affected is insignificant in the context of the scale of European Designated Sites designated for marine mammals and the Management Units and foraging ranges used to identify European Designated Sites to be considered in the screening assessment. In addition, marine mammals are unlikely to be sensitive to the potential effect of the Project on air quality and, consequently, no LSE was concluded for this screening category (table 5.2 item 8).

i. LSE could not be excluded for this site for construction and operation. Potential effects on the site include changes to current flows and sediment transport pathways, which could affect prey species for grey seal and bottlenose dolphin that are qualifying interest features of this site (table 5.2 item 9). LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

j. Mitigation has been proposed to reduce the risk of entrainment/entrapment of grey seal. Prey species for grey seal however could be affected, resulting in a potential indirect impact on grey seal. In addition, vessel strike has the potential to affect grey seal. As a consequence, LSE could not be excluded at this stage (table 5.2 item 10) for construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

k. The potential for a LSIE with other plans and projects has been identified for this European Designated Site (appendix B).

HRA Screening Matrix F1.15: North Channel cSAC

Name of European site and designation: North Channel cSAC																																
EU Code: UK0030399																																
Distance to NSIP: 94.5km																																
European site features	**Likely effects of NSIP**																															
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*
S1351 Harbour porpoise (Phocoena phocoena)	✓ **a**	✓ **a**	✓ **a**	✓ **b**	✓ **b**	✕ **b**	✓ **c**	✓ **c**	✓ **c**	✕ **d**	✕ **d**	✕ **d**	✕ **e**	✕ **e**	✕ **e**	✕ **f**	✕ **f**	✕ **f**	✕ **g**	✕ **g**	✕ **g**	✕ **h**	✕ **h**	✕ **h**	✓ **i**	✓ **i**	✕ **i**	✓ **j**	✓ **j**	✕ **j**	✓ **k**	✓ **k**	✓ **k**

Evidence supporting conclusions:

a. Harbour porpoise have the potential to be affected, particularly by underwater noise, therefore LSE could not be excluded (table 5.2 item 1).

b. There is the potential for change and/or loss of supporting habitat for harbour porpoise as a result of the Project within the marine area of the Wylfa Newydd Development Area and the at Disposal Site, which could have a potential effect on prey species for this species. (table 5.2 item 2) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

c. Changes to marine water quality could affect prey species and the ability of harbour porpoise to effectively forage for prey. This species has the potential to be affected by the project as they may be foraging within the ZOI, therefore LSE could not be excluded (table 5.2 item 3).

d. The Project is expected to give rise to changes in terrestrial water quality. However, no direct effect will occur on this cSAC site (table 5.2 item 4). Indirect effects due to consequent effects on marine water quality are considered in Note c (changes to marine water quality).

e. Changes in surface and groundwater hydrology associated with the Project are unlikely to affect this site due to the fact that it is not sensitive to such changes; hence no LSE was concluded (table 5.2 item 5). Indirect effects on harbour porpoise prey species are considered in Note c (changes to marine water quality).

f. The Project has the potential to result in the spread of INNS in the marine environment. The works have the potential to both spread INNS that are already established on the site and elsewhere in the UK and result in the import of INNS from outside the UK. In order to manage these risks, Horizon will prepare one (or more) Biosecurity Risk Assessment(s) and Method Statement(s) to cover all activities. Horizon will implement a monitoring programme for non-native species. This will include observational surveys on structures that may provide suitable substrate for non-native species. Surveys will record presence/abundance of non-native species, with reporting in agreement with NRW. Monitoring survey requirements for specific sites will be set out in the sub-CoCPs where relevant. Where new presence of INNS is discovered, Biosecurity Risk Assessments and Method Statements will be reviewed and amended where necessary. Wherever appropriate, workers will be given an activity specific tool-box talk from an ECoW. This will include photographs of any INNS species known to be present on a site.

For the marine environment, an initial pre-construction survey will be undertaken and regular surveys will begin once construction of the breakwaters and MOLF is completed. The frequency and extent of monitoring will reduce over time, particularly once the MOLF is no longer operational. The ongoing requirement for monitoring will be regularly reviewed and agreed with NRW. Given these measures, LSE has been excluded in this context (table 5.2 item 6).

g. A Stage 1 Screening exercise has been undertaken in support of an Environmental Permit application under Radiological Substances Regulations (RSR) (WN0908-HZCON-PAC-REP-00003). The results of the assessment demonstrate that the total dose rate predicted to arise due to the proposed Wylfa Newydd Power Station (alone and in combination with other sources) is below the relevant thresholds for the protection of European Designated Sites. Given these findings, LSE can be excluded due to change in radiation dose levels (table 5.2 item 7).

h. The precautionary ZOI identified for air quality overlaps with the marine environment. However, the area potentially affected is insignificant in the context of the scale of European Designated Sites designated for marine mammals and the Management Units and foraging ranges used to identify European Designated Sites to be considered in the screening assessment. In addition, marine mammals are unlikely to be sensitive to the potential effect of the Project on air quality and, consequently, no LSE was concluded for this screening category (table 5.2 item 8).

i. LSE could not be excluded for this site for construction and operation. Potential effects on the site include changes to current flows and sediment transport pathways, which could affect prey species for grey seal and bottlenose dolphin that are qualifying interest features of this site (table 5.2 item 9). LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

j. Mitigation has been proposed to reduce the risk of entrainment/entrapment of harbour porpoise. Prey species for harbour porpoise however could be affected, resulting in a potential indirect impact on harbour porpoise. In addition, vessel strike has the potential to affect harbour porpoise. As a consequence, LSE could not be excluded at this stage (table 5.2 item 10) for construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

k. The potential for a LSIE with other plans and projects has been identified for this European Designated Site (appendix B).

HRA Screening Matrix F1.16: Murlough SAC

Name of European site and designation: Murlough SAC																																
EU Code: UK0016612																																
Distance to NSIP: 117.9km																																
European site features	**Likely effects of NSIP**																															
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*
S1365 Harbour seal (Phoca vitulina)	✓ **a**	✓ **a**	✓ **a**	✓ **b**	✓ **b**	✕ **b**	✓ **c**	✓ **c**	✓ **c**	✕ **d**	✕ **d**	✕ **d**	✕ **e**	✕ **e**	✕ **e**	✕ **f**	✕ **f**	✕ **f**	✕ **g**	✕ **g**	✕ **g**	✕ **h**	✕ **h**	✕ **h**	✓ **i**	✓ **i**	✕ **i**	✓ **j**	✓ **j**	✕ **j**	✓ **k**	✓ **k**	✓ **k**

Evidence supporting conclusions:

a. Harbour seal have the potential to be affected, particularly by underwater noise, therefore LSE could not be excluded (table 5.2 item 1).

b. There is the potential for change and/or loss of supporting habitat for harbour seal as a result of the Project within the marine area of the Wylfa Newydd Development Area and the at Disposal Site, which could have a potential effect on prey species for this species. (table 5.2 item 2) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

c. Changes to marine water quality could affect prey species and the ability of harbour seal to effectively forage for prey. This species has the potential to be affected by the project as they may be foraging within the ZOI, therefore LSE could not be excluded (table 5.2 item 3).

d. The Project is expected to give rise to changes in terrestrial water quality. However, no direct effect will occur on this SAC site (table 5.2 item 4). Indirect effects due to consequent effects on marine water quality are considered in Note c (changes to marine water quality).

e. Changes in surface and groundwater hydrology associated with the Project are unlikely to affect this site due to the fact that it is not sensitive to such changes; hence no LSE was concluded (table 5.2 item 5). Indirect effects on harbour seal prey species are considered in Note c (changes to marine water quality).

f. The Project has the potential to result in the spread of INNS in the marine environment. The works have the potential to both spread INNS that are already established on the site and elsewhere in the UK and result in the import of INNS from outside the UK. In order to manage these risks, Horizon will prepare one (or more) Biosecurity Risk Assessment(s) and Method Statement(s) to cover all activities. Horizon will implement a monitoring programme for non-native species. This will include observational surveys on structures that may provide suitable substrate for non-native species. Surveys will record presence/abundance of non-native species, with reporting in agreement with NRW. Monitoring survey requirements for specific sites will be set out in the sub-CoCPs where relevant. Where new presence of INNS is discovered, Biosecurity Risk Assessments and Method Statements will be reviewed and amended where necessary. Wherever appropriate, workers will be given an activity specific tool-box talk from an ECoW. This will include photographs of any INNS species known to be present on a site.

For the marine environment, an initial pre-construction survey will be undertaken and regular surveys will begin once construction of the breakwaters and MOLF is completed. The frequency and extent of monitoring will reduce over time, particularly once the MOLF is no longer operational. The ongoing requirement for monitoring will be regularly reviewed and agreed with NRW. Given these measures, LSE has been excluded in this context (table 5.2 item 6).

g. A Stage 1 Screening exercise has been undertaken in support of an Environmental Permit application under Radiological Substances Regulations (RSR) (WN0908-HZCON-PAC-REP-00003). The results of the assessment demonstrate that the total dose rate predicted to arise due to the proposed Wylfa Newydd Power Station (alone and in combination with other sources) is below the relevant thresholds for the protection of European Designated Sites. Given these findings, LSE can be excluded due to change in radiation dose levels (table 5.2 item 7).

h. The precautionary ZOI identified for air quality overlaps with the marine environment. However, the area potentially affected is insignificant in the context of the scale of European Designated Sites designated for marine mammals and the Management Units and foraging ranges used to identify European Designated Sites to be considered in the screening assessment. In addition, marine mammals are unlikely to be sensitive to the potential effect of the Project on air quality and, consequently, no LSE was concluded for this screening category (table 5.2 item 8).

i. LSE could not be excluded for this site for construction and operation. Potential effects on the site include changes to current flows and sediment transport pathways, which could affect prey species for grey seal and bottlenose dolphin that are qualifying interest features of this site (table 5.2 item 9). LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

j. Mitigation has been proposed to reduce the risk of entrainment/entrapment of harbour seal. Prey species for harbour seal however could be affected, resulting in a potential indirect impact on harbour seal. In addition, vessel strike has the potential to affect harbour seal. As a consequence, LSE could not be excluded at this stage (table 5.2 item 10) for construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

k. The potential for a LSIE with other plans and projects has been identified for this European Designated Site (appendix B).

HRA Screening Matrix F1.17: Strangford Lough SAC

Name of European site and designation: Strangford Lough SAC																																
EU Code: UK0016618																																
Distance to NSIP: 119.8km																																
European site features	**Likely effects of NSIP**																															
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*
S1365 Harbour seal (Phoca vitulina)	✓ **a**	✓ **a**	✓ **a**	✓ **b**	✓ **b**	✕ **b**	✓ **c**	✓ **c**	✓ **c**	✕ **d**	✕ **d**	✕ **d**	✕ **e**	✕ **e**	✕ **e**	✕ **f**	✕ **f**	✕ **f**	✕ **g**	✕ **g**	✕ **g**	✕ **h**	✕ **h**	✕ **h**	✓ **i**	✓ **i**	✕ **i**	✓ **j**	✓ **j**	✕ **j**	✓ **k**	✓ **k**	✓ **k**

Evidence supporting conclusions:

a. Harbour seal have the potential to be affected, particularly by underwater noise, therefore LSE could not be excluded (table 5.2 item 1).

b. There is the potential for change and/or loss of supporting habitat for harbour seal as a result of the Project within the marine area of the Wylfa Newydd Development Area and the at Disposal Site, which could have a potential effect on prey species for this species. (table 5.2 item 2) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

c. Changes to marine water quality could affect prey species and the ability of harbour seal to effectively forage for prey. This species has the potential to be affected by the project as they may be foraging within the ZOI, therefore LSE could not be excluded (table 5.2 item 3).

d. The Project is expected to give rise to changes in terrestrial water quality. However, no direct effect will occur on this SAC site (table 5.2 item 4). Indirect effects due to consequent effects on marine water quality are considered in Note c (changes to marine water quality).

e. Changes in surface and groundwater hydrology associated with the Project are unlikely to affect this site due to the fact that it is not sensitive to such changes; hence no LSE was concluded (table 5.2 item 5). Indirect effects on harbour seal prey species are considered in Note c (changes to marine water quality).

f. The Project has the potential to result in the spread of INNS in the marine environment. The works have the potential to both spread INNS that are already established on the site and elsewhere in the UK and result in the import of INNS from outside the UK. In order to manage these risks, Horizon will prepare one (or more) Biosecurity Risk Assessment(s) and Method Statement(s) to cover all activities. Horizon will implement a monitoring programme for non-native species. This will include observational surveys on structures that may provide suitable substrate for non-native species. Surveys will record presence/abundance of non-native species, with reporting in agreement with NRW. Monitoring survey requirements for specific sites will be set out in the sub-CoCPs where relevant. Where new presence of INNS is discovered, Biosecurity Risk Assessments and Method Statements will be reviewed and amended where necessary. Wherever appropriate, workers will be given an activity specific tool-box talk from an ECoW. This will include photographs of any INNS species known to be present on a site.

For the marine environment, an initial pre-construction survey will be undertaken and regular surveys will begin once construction of the breakwaters and MOLF is completed. The frequency and extent of monitoring will reduce over time, particularly once the MOLF is no longer operational. The ongoing requirement for monitoring will be regularly reviewed and agreed with NRW. Given these measures, LSE has been excluded in this context (table 5.2 item 6).

g. A Stage 1 Screening exercise has been undertaken in support of an Environmental Permit application under Radiological Substances Regulations (RSR) (WN0908-HZCON-PAC-REP-00003). The results of the assessment demonstrate that the total dose rate predicted to arise due to the proposed Wylfa Newydd Power Station (alone and in combination with other sources) is below the relevant thresholds for the protection of European Designated Sites. Given these findings, LSE can be excluded due to change in radiation dose levels (table 5.2 item 7).

h. The precautionary ZOI identified for air quality overlaps with the marine environment. However, the area potentially affected is insignificant in the context of the scale of European Designated Sites designated for marine mammals and the Management Units and foraging ranges used to identify European Designated Sites to be considered in the screening assessment. In addition, marine mammals are unlikely to be sensitive to the potential effect of the Project on air quality and, consequently, no LSE was concluded for this screening category (table 5.2 item 8).

i. LSE could not be excluded for this site for construction and operation. Potential effects on the site include changes to current flows and sediment transport pathways, which could affect prey species for grey seal and bottlenose dolphin that are qualifying interest features of this site (table 5.2 item 9). LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

j. Mitigation has been proposed to reduce the risk of entrainment/entrapment of harbour seal. Prey species for harbour seal however could be affected, resulting in a potential indirect impact on harbour seal. In addition, vessel strike has the potential to affect harbour seal. As a consequence, LSE could not be excluded at this stage (table 5.2 item 10) for construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

k. The potential for a LSIE with other plans and projects has been identified for this European Designated Site (appendix B).

HRA Screening Matrix F1.18: The Maidens SAC

Name of European site and designation: The Maidens SAC																																
EU Code: UK0030384																																
Distance to NSIP: 180.4km																																
European site features	**Likely effects of NSIP**																															
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*
S1364 Grey seal (Halichoerus grypus)	✓ **a**	✓ **a**	✓ **a**	✓ **b**	✓ **b**	✕ **b**	✓ **c**	✓ **c**	✓ **c**	✕ **d**	✕ **d**	✕ **d**	✕ **e**	✕ **e**	✕ **e**	✕ **f**	✕ **f**	✕ **f**	✕ **g**	✕ **g**	✕ **g**	✕ **h**	✕ **h**	✕ **h**	✓ **i**	✓ **i**	✕ **i**	✓ **j**	✓ **j**	✕ **j**	✓ **k**	✓ **k**	✓ **k**

Evidence supporting conclusions:

a. Grey seal has the potential to be affected, particularly by underwater noise, therefore LSE could not be excluded (table 5.2 item 1).

b. There is the potential for change and/or loss of supporting habitat for grey seal as a result of the Project within the marine area of the Wylfa Newydd Development Area and the at Disposal Site, which could have a potential effect on prey species for these species. Although the potential for a LSE to arise on distant SACs is considered to be highly unlikely, a precautionary approach was taken and LSE was not excluded at this stage in the assessment (table 5.2 item 2) for construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

c. Changes to marine water quality could affect prey species and the ability of marine mammals to effectively forage for prey. Therefore LSE could not be excluded (table 5.2 item 3).

d. The Project is expected to give rise to changes in terrestrial water quality. However, no direct effect will occur on this SAC (table 5.2 item 4). Indirect effects due to consequent effects on marine water quality are considered in Note c (changes to marine water quality).

e. Changes in surface and groundwater hydrology associated with the Project are unlikely to affect this site due to the fact that these European Designated Sites are not sensitive to such changes; hence no LSE was concluded (table 5.2 item 5). Indirect effects on marine mammal prey species are considered in Note c (changes to marine water quality).

f. The Project has the potential to result in the spread of INNS in the marine environment. The works have the potential to both spread INNS that are already established on the site and elsewhere in the UK and result in the import of INNS from outside the UK. In order to manage these risks, Horizon will prepare one (or more) Biosecurity Risk Assessment(s) and Method Statement(s) to cover all activities. Horizon will implement a monitoring programme for non-native species. This will include observational surveys on structures that may provide suitable substrate for non-native species. Surveys will record presence/abundance of non-native species, with reporting in agreement with NRW. Monitoring survey requirements for specific sites will be set out in the sub-CoCPs where relevant. Where new presence of INNS is discovered, Biosecurity Risk Assessments and Method Statements will be reviewed and amended where necessary. Wherever appropriate, workers will be given an activity specific tool-box talk from an ECoW. This will include photographs of any INNS species known to be present on a site.

For the marine environment, an initial pre-construction survey will be undertaken and regular surveys will begin once construction of the breakwaters and MOLF is completed. The frequency and extent of monitoring will reduce over time, particularly once the MOLF is no longer operational. The ongoing requirement for monitoring will be regularly reviewed and agreed with NRW. Given these measures, LSE has been excluded in this context (table 5.2 item 6).

g. A Stage 1 Screening exercise has been undertaken in support of an Environmental Permit application under Radiological Substances Regulations (RSR) (WN0908-HZCON-PAC-REP-00003). The results of the assessment demonstrate that the total dose rate predicted to arise due to the proposed Wylfa Newydd Power Station (alone and in combination with other sources) is below the relevant thresholds for the protection of European Designated Sites. Given these findings, LSE can be excluded due to change in radiation dose levels (table 5.2 item 7).

h. The precautionary ZOI identified for air quality overlaps with the marine environment. However, the area potentially affected is insignificant in the context of the scale of European Designated Sites designated for marine mammals and the Management Units and foraging ranges used to identify European Designated Sites to be considered in the screening assessment. In addition, marine mammals are unlikely to be sensitive to the potential effect of the Project on air quality and, consequently, no LSE was concluded for this screening category (table 5.2 item 8).

i. LSE could not be excluded for this site for construction and operation. Potential effects on the site include changes to current flows and sediment transport pathways, which could affect prey species for grey seal and bottlenose dolphin that are qualifying interest features of this site (table 5.2 item 9). LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

j. Mitigation has been proposed to reduce the risk of entrainment/entrapment of grey seal. Prey species for grey seal however could be affected, resulting in a potential indirect impact on grey seal. In addition, vessel strike has the potential to affect grey seal. As a consequence, LSE could not be excluded at this stage (table 5.2 item 10) for construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

k. The potential for a LSIE with other plans and projects has been identified for this European Designated Site (appendix B).

HRA Screening Matrix F1.19: Rockabill to Dalkey SAC

Name of European site and designation: Rockabill to Dalkey SAC																																
EU Code: IE003000																																
Distance to NSIP: 97.4km																																
European site features	**Likely effects of NSIP**																															
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*
S1351 Harbour porpoise (Phocoena phocoena)	✓ **a**	✓ **a**	✓ **a**	✓ **b**	✓ **b**	✕ **b**	✓ **c**	✓ **c**	✓ **c**	✕ **d**	✕ **d**	✕ **d**	✕ **e**	✕ **e**	✕ **e**	✕ **f**	✕ **f**	✕ **f**	✕ **g**	✕ **g**	✕ **g**	✕ **h**	✕ **h**	✕ **h**	✓ **i**	✓ **i**	✕ **i**	✓ **j**	✓ **j**	✕ **j**	✕ **k**	✕ **k**	✕ **k**

Evidence supporting conclusions:

a. Harbour porpoise have the potential to be affected, particularly by underwater noise, therefore LSE could not be excluded (table 5.2 item 1).

b. There is the potential for change and/or loss of supporting habitat for harbour porpoise as a result of the Project within the marine area of the Wylfa Newydd Development Area and the at Disposal Site, which could have a potential effect on prey species for this species. (table 5.2 item 2) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

c. Changes to marine water quality could affect prey species and the ability of harbour porpoise to effectively forage for prey. This species has the potential to be affected by the project as they may be foraging within the ZOI, therefore LSE could not be excluded (table 5.2 item 3).

d. The Project is expected to give rise to changes in terrestrial water quality. However, no direct effect will occur on this cSAC site (table 5.2 item 4). Indirect effects due to consequent effects on marine water quality are considered in Note c (changes to marine water quality).

e. Changes in surface and groundwater hydrology associated with the Project are unlikely to affect this site due to the fact that it is not sensitive to such changes; hence no LSE was concluded (table 5.2 item 5). Indirect effects on harbour porpoise prey species are considered in Note c (changes to marine water quality).

f. The Project has the potential to result in the spread of INNS in the marine environment. The works have the potential to both spread INNS that are already established on the site and elsewhere in the UK and result in the import of INNS from outside the UK. In order to manage these risks, Horizon will prepare one (or more) Biosecurity Risk Assessment(s) and Method Statement(s) to cover all activities. Horizon will implement a monitoring programme for non-native species. This will include observational surveys on structures that may provide suitable substrate for non-native species. Surveys will record presence/abundance of non-native species, with reporting in agreement with NRW. Monitoring survey requirements for specific sites will be set out in the sub-CoCPs where relevant. Where new presence of INNS is discovered, Biosecurity Risk Assessments and Method Statements will be reviewed and amended where necessary. Wherever appropriate, workers will be given an activity specific tool-box talk from an ECoW. This will include photographs of any INNS species known to be present on a site.

For the marine environment, an initial pre-construction survey will be undertaken and regular surveys will begin once construction of the breakwaters and MOLF is completed. The frequency and extent of monitoring will reduce over time, particularly once the MOLF is no longer operational. The ongoing requirement for monitoring will be regularly reviewed and agreed with NRW. Given these measures, LSE has been excluded in this context (table 5.2 item 6).

g. A Stage 1 Screening exercise has been undertaken in support of an Environmental Permit application under Radiological Substances Regulations (RSR) (WN0908-HZCON-PAC-REP-00003). The results of the assessment demonstrate that the total dose rate predicted to arise due to the proposed Wylfa Newydd Power Station (alone and in combination with other sources) is below the relevant thresholds for the protection of European Designated Sites. Given these findings, LSE can be excluded due to change in radiation dose levels (table 5.2 item 7).

h. The precautionary ZOI identified for air quality overlaps with the marine environment. However, the area potentially affected is insignificant in the context of the scale of European Designated Sites designated for marine mammals and the Management Units and foraging ranges used to identify European Designated Sites to be considered in the screening assessment. In addition, marine mammals are unlikely to be sensitive to the potential effect of the Project on air quality and, consequently, no LSE was concluded for this screening category (table 5.2 item 8).

i. LSE could not be excluded for this site for construction and operation. Potential effects on the site include changes to current flows and sediment transport pathways, which could affect prey species for grey seal and bottlenose dolphin that are qualifying interest features of this site (table 5.2 item 9). LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

j. Mitigation has been proposed to reduce the risk of entrainment/entrapment of harbour porpoise. Prey species for harbour porpoise however could be affected, resulting in a potential indirect impact on harbour porpoise. In addition, vessel strike has the potential to affect harbour porpoise. As a consequence, LSE could not be excluded at this stage (table 5.2 item 10) for construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

k. The screening exercise for a potential LSIE has confirmed that there are no other plans or projects relevant to the assessment of effects for this site (appendix B). LSIE with other plans and projects, therefore, can be excluded for this European Designated Site.

HRA Screening Matrix F1.20: Lambay Island SAC

Name of European site and designation: Lambay Island SAC																																
EU Code: IE0000204																																
Distance to NSIP: 98.8km																																
European site features	**Likely effects of NSIP**																															
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*
S1364 Grey seal (Halichoerus grypus)	✓ **a**	✓ **a**	✓ **a**	✓ **b**	✓ **b**	✕ **b**	✓ **c**	✓ **c**	✓ **c**	✕ **d**	✕ **d**	✕ **d**	✕ **e**	✕ **e**	✕ **e**	✕ **f**	✕ **f**	✕ **f**	✕ **g**	✕ **g**	✕ **g**	✕ **h**	✕ **h**	✕ **h**	✓ **i**	✓ **i**	✕ **i**	✓ **j**	✓ **j**	✕ **j**	✓ **k**	✓ **k**	✓ **k**
S1365 Harbour seal (Phoca vitulina)	✓ **a**	✓ **a**	✓ **a**	✓ **b**	✓ **b**	✕ **b**	✓ **c**	✓ **c**	✓ **c**	✕ **d**	✕ **d**	✕ **d**	✕ **e**	✕ **e**	✕ **e**	✕ **f**	✕ **f**	✕ **f**	✕ **g**	✕ **g**	✕ **g**	✕ **h**	✕ **h**	✕ **h**	✓ **i**	✓ **i**	✕ **i**	✓ **j**	✓ **j**	✕ **j**	✓ **k**	✓ **k**	✓ **k**

Evidence supporting conclusions:

a. Grey seal and harbour seal have the potential to be affected, particularly by underwater noise, therefore LSE could not be excluded (table 5.2 item 1).

b. There is the potential for change and/or loss of supporting habitat for grey seal and harbour seal as a result of the Project within the marine area of the Wylfa Newydd Development Area and the at Disposal Site, which could have a potential effect on prey species for these species. Although the potential for a LSE to arise on distant SACs is considered to be highly unlikely, a precautionary approach was taken and LSE was not excluded at this stage in the assessment (table 5.2 item 2) for construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

c. Changes to marine water quality could affect prey species and the ability of marine mammals to effectively forage for prey. Therefore LSE could not be excluded (table 5.2 item 3).

d. The Project is expected to give rise to changes in terrestrial water quality. However, no direct effect will occur on this SAC (table 5.2 item 4). Indirect effects due to consequent effects on marine water quality are considered in Note c (changes to marine water quality).

e. Changes in surface and groundwater hydrology associated with the Project are unlikely to affect this site due to the fact that these European Designated Sites are not sensitive to such changes; hence no LSE was concluded (table 5.2 item 5). Indirect effects on marine mammal prey species are considered in Note c (changes to marine water quality).

f. The Project has the potential to result in the spread of INNS in the marine environment. The works have the potential to both spread INNS that are already established on the site and elsewhere in the UK and result in the import of INNS from outside the UK. In order to manage these risks, Horizon will prepare one (or more) Biosecurity Risk Assessment(s) and Method Statement(s) to cover all activities. Horizon will implement a monitoring programme for non-native species. This will include observational surveys on structures that may provide suitable substrate for non-native species. Surveys will record presence/abundance of non-native species, with reporting in agreement with NRW. Monitoring survey requirements for specific sites will be set out in the sub-CoCPs where relevant. Where new presence of INNS is discovered, Biosecurity Risk Assessments and Method Statements will be reviewed and amended where necessary. Wherever appropriate, workers will

be given an activity specific tool-box talk from an ECoW. This will include photographs of any INNS species known to be present on a site.

For the marine environment, an initial pre-construction survey will be undertaken and regular surveys will begin once construction of the breakwaters and MOLF is completed. The frequency and extent of monitoring will reduce over time, particularly once the MOLF is no longer operational. The ongoing requirement for monitoring will be regularly reviewed and agreed with NRW. Given these measures, LSE has been excluded in this context (table 5.2 item 6).

g. A Stage 1 Screening exercise has been undertaken in support of an Environmental Permit application under Radiological Substances Regulations (RSR) (WN0908-HZCON-PAC-REP-00003). The results of the assessment demonstrate that the total dose rate predicted to arise due to the proposed Wylfa Newydd Power Station (alone and in combination with other sources) is below the relevant thresholds for the protection of European Designated Sites. Given these findings, LSE can be excluded due to change in radiation dose levels (table 5.2 item 7).

h. The precautionary ZOI identified for air quality overlaps with the marine environment. However, the area potentially affected is insignificant in the context of the scale of European Designated Sites designated for marine mammals and the Management Units and foraging ranges used to identify European Designated Sites to be considered in the screening assessment. In addition, marine mammals are unlikely to be sensitive to the potential effect of the Project on air quality and, consequently, no LSE was concluded for this screening category (table 5.2 item 8).

i. LSE could not be excluded for this site for construction and operation. Potential effects on the site include changes to current flows and sediment transport pathways, which could affect prey species for grey seal and bottlenose dolphin that are qualifying interest features of this site (table 5.2 item 9). LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

j. Mitigation has been proposed to reduce the risk of entrainment/entrapment of grey seal and harbour seal. Prey species for grey seal and harbour seal however could be affected, resulting in a potential indirect impact on grey seal and harbour seal. In addition, vessel strike has the potential to affect grey seal and harbour seal. As a consequence, LSE could not be excluded at this stage (table 5.2 item 10) for construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

k. The potential for a LSIE with other plans and projects has been identified for this European Designated Site (appendix B).

HRA Screening Matrix F1.21: Slaney River Valley SAC

Name of European site and designation: Slaney River Valley SAC																																		
EU Code: IE0000781																																		
Distance to NSIP: 141.2km																																		
European site features	**Likely effects of NSIP**																																	
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*
S1365 Harbour seal (Phoca vitulina)	✓ **a**	✓ **a**	✓ **a**	✓ **b**	✓ **b**	✕ **b**	✓ **c**	✓ **c**	✓ **c**	✕ **d**	✕ **d**	✕ **d**	✕ **e**	✕ **e**	✕ **e**	✕ **f**	✕ **f**	✕ **f**	✕ **g**	✕ **g**	✕ **g**	✕ **h**	✕ **h**	✕ **h**	✓ **i**	✓ **i**	✕ **i**	✓ **j**	✓ **j**	✕ **j**	✕ **k**	✕ **k**	✕ **k**

Evidence supporting conclusions:

a. Harbour seal have the potential to be affected, particularly by underwater noise, therefore LSE could not be excluded (table 5.2 item 1).

b. There is the potential for change and/or loss of supporting habitat for harbour seal as a result of the Project within the marine area of the Wylfa Newydd Development Area and the at Disposal Site, which could have a potential effect on prey species for this species. (table 5.2 item 2) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

c. Changes to marine water quality could affect prey species and the ability of harbour seal to effectively forage for prey. This species has the potential to be affected by the project as they may be foraging within the ZOI, therefore LSE could not be excluded (table 5.2 item 3).

d. The Project is expected to give rise to changes in terrestrial water quality. However, no direct effect will occur on this SAC site (table 5.2 item 4). Indirect effects due to consequent effects on marine water quality are considered in Note c (changes to marine water quality).

e. Changes in surface and groundwater hydrology associated with the Project are unlikely to affect this site due to the fact that it is not sensitive to such changes; hence no LSE was concluded (table 5.2 item 5). Indirect effects on harbour seal prey species are considered in Note c (changes to marine water quality).

f. The Project has the potential to result in the spread of INNS in the marine environment. The works have the potential to both spread INNS that are already established on the site and elsewhere in the UK and result in the import of INNS from outside the UK. In order to manage these risks, Horizon will prepare one (or more) Biosecurity Risk Assessment(s) and Method Statement(s) to cover all activities. Horizon will implement a monitoring programme for non-native species. This will include observational surveys on structures that may provide suitable substrate for non-native species. Surveys will record presence/abundance of non-native species, with reporting in agreement with NRW. Monitoring survey requirements for specific sites will be set out in the sub-CoCPs where relevant. Where new presence of INNS is discovered, Biosecurity Risk Assessments and Method Statements will be reviewed and amended where necessary. Wherever appropriate, workers will be given an activity specific tool-box talk from an ECoW. This will include photographs of any INNS species known to be present on a site.

For the marine environment, an initial pre-construction survey will be undertaken and regular surveys will begin once construction of the breakwaters and MOLF is completed. The frequency and extent of monitoring will reduce over time, particularly once the MOLF is no longer operational. The ongoing requirement for monitoring will be regularly reviewed and agreed with NRW. Given these measures, LSE has been excluded in this context (table 5.2 item 6).

g. A Stage 1 Screening exercise has been undertaken in support of an Environmental Permit application under Radiological Substances Regulations (RSR) (WN0908-HZCON-PAC-REP-00003). The results of the assessment demonstrate that the total dose rate predicted to arise due to the proposed Wylfa Newydd Power Station (alone and in combination with other sources) is below the relevant thresholds for the protection of European Designated Sites. Given these findings, LSE can be excluded due to change in radiation dose levels (table 5.2 item 7).

h. The precautionary ZOI identified for air quality overlaps with the marine environment. However, the area potentially affected is insignificant in the context of the scale of European Designated Sites designated for marine mammals and the Management Units and foraging ranges used to identify European Designated Sites to be considered in the screening assessment. In addition, marine mammals are unlikely to be sensitive to the potential effect of the Project on air quality and, consequently, no LSE was concluded for this screening category (table 5.2 item 8).

i. LSE could not be excluded for this site for construction and operation. Potential effects on the site include changes to current flows and sediment transport pathways, which could affect prey species for grey seal and bottlenose dolphin that are qualifying interest features of this site (table 5.2 item 9). LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

j. Mitigation has been proposed to reduce the risk of entrainment/entrapment of harbour seal. Prey species for harbour seal however could be affected, resulting in a potential indirect impact on harbour seal. In addition, vessel strike has the potential to affect harbour seal. As a consequence, LSE could not be excluded at this stage (table 5.2 item 10) for construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

k. The screening exercise for a potential LSIE has confirmed that there are no other plans or projects relevant to the assessment of effects for this site (appendix B). LSIE with other plans and projects, therefore, can be excluded.

HRA Screening Matrix F1.22: Saltee Islands SAC

Name of European site and designation: Saltee Islands SAC																																		
EU Code: IE0000707																																		
Distance to NSIP: 191.0km																																		
European site features	**Likely effects of NSIP**																																	
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*
S1364 Grey seal (Halichoerus grypus)	✓ **a**	✓ **a**	✓ **a**	✓ **b**	✓ **b**	✕ **b**	✓ **c**	✓ **c**	✓ **c**	✕ **d**	✕ **d**	✕ **d**	✕ **e**	✕ **e**	✕ **e**	✕ **f**	✕ **f**	✕ **f**	✕ **g**	✕ **g**	✕ **g**	✕ **h**	✕ **h**	✕ **h**	✓ **i**	✓ **i**	✕ **i**	✓ **j**	✓ **j**	✕ **j**	✕ **k**	✕ **k**	✕ **k**

Evidence supporting conclusions:

a. Grey seal has the potential to be affected, particularly by underwater noise, therefore LSE could not be excluded (table 5.2 item 1).

b. There is the potential for change and/or loss of supporting habitat for grey seal as a result of the Project within the marine area of the Wylfa Newydd Development Area and the at Disposal Site, which could have a potential effect on prey species for these species. Although the potential for a LSE to arise on distant SACs is considered to be highly unlikely, a precautionary approach was taken and LSE was not excluded at this stage in the assessment (table 5.2 item 2) for construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

c. Changes to marine water quality could affect prey species and the ability of marine mammals to effectively forage for prey. Therefore LSE could not be excluded (table 5.2 item 3).

d. The Project is expected to give rise to changes in terrestrial water quality. However, no direct effect will occur on this SAC (table 5.2 item 4). Indirect effects due to consequent effects on marine water quality are considered in Note c (changes to marine water quality).

e. Changes in surface and groundwater hydrology associated with the Project are unlikely to affect this site due to the fact that these European Designated Sites are not sensitive to such changes; hence no LSE was concluded (table 5.2 item 5). Indirect effects on marine mammal prey species are considered in Note c (changes to marine water quality).

f. The Project has the potential to result in the spread of INNS in the marine environment. The works have the potential to both spread INNS that are already established on the site and elsewhere in the UK and result in the import of INNS from outside the UK. In order to manage these risks, Horizon will prepare one (or more) Biosecurity Risk Assessment(s) and Method Statement(s) to cover all activities. Horizon will implement a monitoring programme for non-native species. This will include observational surveys on structures that may provide suitable substrate for non-native species. Surveys will record presence/abundance of non-native species, with reporting in agreement with NRW. Monitoring survey requirements for specific sites will be set out in the sub-CoCPs where relevant. Where new presence of INNS is discovered, Biosecurity Risk Assessments and Method Statements will be reviewed and amended where necessary. Wherever appropriate, workers will be given an activity specific tool-box talk from an ECoW. This will include photographs of any INNS species known to be present on a site.

For the marine environment, an initial pre-construction survey will be undertaken and regular surveys will begin once construction of the breakwaters and MOLF is completed. The frequency and extent of monitoring will reduce over time, particularly once the MOLF is no longer operational. The ongoing requirement for monitoring will be regularly reviewed and agreed with NRW. Given these measures, LSE has been excluded in this context (table 5.2 item 6).

g. A Stage 1 Screening exercise has been undertaken in support of an Environmental Permit application under Radiological Substances Regulations (RSR) (WN0908-HZCON-PAC-REP-00003). The results of the assessment demonstrate that the total dose rate predicted to arise due to the proposed Wylfa Newydd Power Station (alone and in combination with other sources) is below the relevant thresholds for the protection of European Designated Sites. Given these findings, LSE can be excluded due to change in radiation dose levels (table 5.2 item 7).

h. The precautionary ZOI identified for air quality overlaps with the marine environment. However, the area potentially affected is insignificant in the context of the scale of European Designated Sites designated for marine mammals and the Management Units and foraging ranges used to identify European Designated Sites to be considered in the screening assessment. In addition, marine mammals are unlikely to be sensitive to the potential effect of the Project on air quality and, consequently, no LSE was concluded for this screening category (table 5.2 item 8).

i. LSE could not be excluded for this site for construction and operation. Potential effects on the site include changes to current flows and sediment transport pathways, which could affect prey species for grey seal and bottlenose dolphin that are qualifying interest features of this site (table 5.2 item 9). LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

j. Mitigation has been proposed to reduce the risk of entrainment/entrapment of grey seal. Prey species for grey seal however could be affected, resulting in a potential indirect impact on grey seal. In addition, vessel strike has the potential to affect grey seal. As a consequence, LSE could not be excluded at this stage (table 5.2 item 10) for construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

k. The screening exercise for a potential LSIE has confirmed that there are no other plans or projects relevant to the assessment of effects for this site (appendix B). LSIE with other plans and projects, therefore, can be excluded.

Planning Inspectorate

Advice Note 10

Habitats Regulations Assessment

Appendix F.2: Screening Matrices for SPAs and pSPAs

Potential Effects

Potential effects upon the European Designated Sites[7] which are considered within the submitted Shadow HRA report for Wylfa Newydd Power Station are provided in the table below.

[7] As defined in Advice Note 10.

Effects considered within the screening matrices (refer to chapter 5 for further detail)

Designation	Effects described in submission information	Presented in screening matrices as
All qualifying sites (and features) screened in to the assessment	• Potential disturbance effects of noise and vibration during activities. • Potential effects from changes in visual stimuli (including lighting) associated with the proposed works.	• Changes in visual and acoustic stimuli
	• Potential effects from reduction in physical footprint of the activity concerned as a result of permanent or temporary works.	• Land take, including seabed or intertidal land
	• Potential effects due to changes in marine water quality from substances released either directly or indirectly into the marine environment.	• Changes in marine water quality
	• Potential effects from changes to the chemical composition of surface water and groundwater, including sedimentation, changes to water turbidity and the re-suspension of sediment-bound contaminants.	• Changes in terrestrial water quality
	• Potential effects from changes to hydrology and hydrogeology on land, including changes to the flow and drainage of water, increased risks associated with flooding and sediment dynamics, and effects of and on the local water supply.	• Changes in surface and groundwater hydrology
	• Potential effects on terrestrial and marine ecology due to increased competition from Invasive Non-Native Species (INNS).	• Introduction of Invasive Non-Native Species
	• Potential effects from radiation emanating from the Power Station during operation	• Change in radiation dose levels

	and includes radiological contamination of the air, water or terrestrial environment.	
	• Potential effects from non-radiological changes in air quality associated with the construction and operation of the Project (e.g. dust, construction plant emissions).	• Change in air quality
	• Potential effects due to changes to the physical coastline as a result of marine and coastal works. This includes the implications for habitat functionality of local coastal erosion and accretion, and the release and dispersal of suspended sediments.	• Alteration of coastal processes and hydro-dynamics
	• Potential effects from direct interactions (collisions) with infrastructure or machinery associated with the Project. This includes indirect effects through entrainment / entrapment of prey species for marine mammals and birds.	• Physical interaction between species and Project infra-structure

STAGE 1: SCREENING MATRICES FOR SPAs AND pSPAs

The European Designated Sites included within the screening assessment are:

- Morwenoliaid Ynys Môn/Anglesey Terns SPA - Wales (UK9013061)
- Glannau Ynys Gybi/Holy Island Coast SPA - Wales (UK9013101)
- Ynys Seiriol/Puffin Island SPA - Wales (UK9020285)
- Glannau Aberdaron and Ynys Enlli/Aberdaron Coast Bardsey Island SPA - Wales (UK9013121)
- Mynydd Cilan, Trwyn y Wylfa ac Ynysoedd Sant Tudwal/Mynydd Cilan, Trwyn y Wylfa and the St. Tudwal Islands SPA - Wales (UK9020282)
- Aber Afen Dyfrdwy/Dee Estuary SPA – Wales / England (UK9013011)
- Sgomer, Gogwm a moroedd Benfro/Skomer, Skokholm and the seas off Pembrokeshire SPA - Wales (UK9014051)
- Grassholm SPA - Wales (UK9014041)
- Mersey Narrows and North Wirral Foreshore SPA – England (UK9020287)
- Ribble and Alt Estuaries SPA – England (UK9005103)
- Morecambe Bay SPA – England (UK9005081)
- Morecambe Bay and Duddon Estuary SPA – England (UK9005081)
- Bowland Fells SPA - England (UK9005151)
- Lambay Island SPA - Ireland (004069)

- Ireland's Eye SPA - Ireland (004117)
- East Coast Marine pSPA – Northern Ireland (UK9020320)
- Copeland Islands SPA - Ireland (UK9020291)
- Saltee Islands SPA - Ireland (004002)
- Rathlin Island SPA – Northern Ireland (UK9020011)
- Horn Head to Fanad Head SPA – Ireland (004194)
- West Donegal Coast SPA – Ireland (004150)
- Tory Island SPA – Ireland (004073)
- Ailsa Craig SPA – Scotland (UK9003091)

The complete list of qualifying interest features for each European Designated Site is presented in appendix E. This includes the qualifying features of SPAs and pSPAs considered in the Stage 1 Screening exercise, with those features for which the potential for LSE has been determined (and therefore requiring Stage 2 assessment) identified in bold text. Only the qualifying features identified in bold text are carried into the screening matrices presented in this appendix (appendix F).

Evidence for, or against, likely significant effects on the European Designated Site(s) and their qualifying feature(s) is detailed within the footnotes to the screening matrices below. The screening matrices follow the requirements and structure set out in appendix 1 to Advice Note 10.

Matrix Key:

☐= Likely significant effect **cannot** be excluded

☐= Likely significant effect **can** be excluded

C = construction

O = operation

D = decommissioning

Where effects are not applicable to a particular feature they are greyed out and an explanation is provided as to why the effect is not relevant.

HRA Screening Matrix F2.1: Morwenoliaid Ynys Môn/Anglesey Terns SPA

Name of European site and designation: Morwenoliaid Ynys Môn/Anglesey Terns SPA																																
EU Code: UK9013061																																
Distance to NSIP: 0km																																
European site features	**Likely effects of NSIP**																															
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*
A194 Arctic tern (Sterna paradisaea)	✓ **a**	✓ **a**	✓ **a**	✓ **b**	✓ **b**	✗ **b**	✓ **c**	✓ **c**	✓ **c**	✗ **d**	✗ **d**	✗ **d**	✓ **e**	✓ **e**	✗ **e**	✗ **f**	✗ **f**	✗ **f**	✗ **g**	✗ **g**	✗ **g**	✓ **h**	✓ **h**	✗ **h**	✓ **i**	✓ **i**	✗ **i**	✓ **j**	✓ **j**	✗ **j**	✓ **k**	✓ **k**	✓ **k**
A191 Sandwich tern (Sterna sandvicensis)	✓ **a**	✓ **a**	✓ **a**	✓ **b**	✓ **b**	✗ **b**	✓ **c**	✓ **c**	✓ **c**	✗ **d**	✗ **d**	✗ **d**	✓ **e**	✓ **e**	✗ **e**	✗ **f**	✗ **f**	✗ **f**	✗ **g**	✗ **g**	✗ **g**	✓ **h**	✓ **h**	✗ **h**	✓ **i**	✓ **i**	✗ **i**	✓ **j**	✓ **j**	✗ **j**	✓ **k**	✓ **k**	✓ **k**

A192 Roseate tern (Sterna dougallii)	✓ a	✓ a	✓ a	✓ b	✓ b	✗ b	✓ c	✓ c	✓ c	✗ d	✗ d	✗ d	✓ e	✓ e	✗ e	✗ f	✗ f	✗ f	✗ g	✗ g	✗ g	✓ h	✓ h	✗ h	✓ i	✓ i	✗ i	✓ j	✓ j	✗ j	✓ k	✓ k	✓ k
A193 Common tern (Sterna hirundo)	✓ a	✓ a	✓ a	✓ b	✓ b	✗ b	✓ c	✓ c	✓ c	✗ d	✗ d	✗ d	✓ e	✓ e	✗ e	✗ f	✗ f	✗ f	✗ g	✗ g	✗ g	✓ h	✓ h	✗ h	✓ i	✓ i	✗ i	✓ j	✓ j	✗ j	✓ k	✓ k	✓ k

Evidence supporting conclusions:

a. Noise, vibration and visual disturbance have the potential to affect the behaviour of foraging roosting, commuting and breeding birds. This SPA has the greatest potential to be affected as it is in very close proximity to the Project. There is also the potential for disturbance during the operational phase due to operational combustion activity. Likely Significant Effects (LSE) could not be excluded, as the qualifying interest features have the potential to be affected by the Project due to their presence within the Zone of Influence (ZOI) and the fact that they may be foraging and/or breeding within the ZOI (table 5.4 item 1).

b. Intertidal and subtidal land-take has the potential to impact on areas used by foraging birds through habitat loss and effects on prey species. This screening category includes the potential impact of the disposal of dredged material on subtidal habitat at Disposal Site. LSE could not be excluded, as the qualifying interest features have the potential to be affected by the Project due to their presence within the ZOI and the fact that they may be foraging within the ZOI (table 5.4 item 2) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

c. Changes to marine water quality could affect prey species and the ability of birds to effectively forage for prey. LSE could not be excluded, as the qualifying interest features have the potential to be affected by the Project due to their presence within the ZOI and the fact that they may be foraging within the ZOI (table 5.4 item 3a).

d. The Project is expected to give rise to changes in terrestrial water quality. However, no direct effect will occur on SPAs (table 5.4 item 4). Indirect effects due to consequent effects on marine water quality are considered in Note c (changes to marine water quality).

e. The coastal lagoon qualifying feature of the Bae Cemlyn/Cemlyn Bay SAC has the potential to be affected by changes in surface and groundwater hydrology and, on this basis, it was concluded that LSE could not be excluded for the Morwenoliaid Ynys Môn/Anglesey Terns SPA (table 5.4 item 5a) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4. The coastal lagoon feature is an important habitat within the SPA because the tern colony breeds on the islands within the lagoon.

f. The Project has the potential to result in the spread of INNS in the marine environment. The works have the potential to both spread INNS that are already established on the site and elsewhere in the UK and result in the import of INNS from outside the UK. In order to manage these risks, Horizon will prepare one (or more) Biosecurity Risk Assessment(s) and Method Statement(s) to cover all activities. Horizon will implement a monitoring programme for non-native species. This will include observational surveys on structures that may provide suitable substrate for non-native species. Surveys will record presence/abundance of non-native species, with reporting in agreement with NRW. Monitoring survey requirements for specific sites will be set out in the sub-CoCPs where relevant. Where new presence of INNS is discovered, Biosecurity Risk Assessments and Method Statements will be reviewed and amended where necessary. Wherever appropriate, workers will be given an activity specific tool-box talk from an ECoW. This will include photographs of any INNS species known to be present on a site.

For the marine environment, an initial pre-construction survey will be undertaken and regular surveys will begin once construction of the breakwaters and MOLF is completed. The frequency and extent of monitoring will reduce over time, particularly once the MOLF is no longer operational. The ongoing requirement for monitoring will be regularly reviewed and agreed with NRW. Given these measures, LSE has been excluded in this context (table 5.4 item 6).

g. A Stage 1 Screening exercise has been undertaken in support of an Environmental Permit application under Radiological Substances Regulations (RSR) (WN0908-HZCON-PAC-REP-00003). The results of the assessment demonstrate that the total dose rate predicted to arise due to the proposed Wylfa Newydd Power Station (alone and in combination with other sources) is below the relevant thresholds for the protection of European Designated Sites. Given these findings, LSE can be excluded due to change in radiation dose levels (table 5.4 item 7).

h. The precautionary ZOI identified for air quality overlaps with Morwenoliaid Ynys Môn / Anglesey Terns SPA. The screening assessment concludes that there is potential for LSE due to NOx emissions from construction plant, machinery and vessels and dust generation. For the operating Power Station, operational combustion activity (standby generator commissioning, standby generator routine testing, LOOP/LOCA scenario, maximum boiler use, MEEG testing, MEEG operation and long-

term NOx emissions) could affect the SPA (table 5.4 item 8a). LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

i. The potential for LSE could not be excluded for this SPA, due to potential changes to current flows and sediment transport pathways, which could affect habitats within the designated site and prey species for birds (table 5.4 item 9a) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

j. Direct effects could occur, such as entrapment within the circulating water intake. More significantly the food chain for bird species could be affected by entrainment and entrapment within the circulating water system. As a consequence, LSE could not be excluded for this screening category (table 5.4 item 10) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

k. The potential for a LSIE with other plans and projects has been identified for this European Designated Site (appendix B).

HRA Screening Matrix F2.2: Glannau Ynys Gybi/Holy Island Coast SPA

Name of European site and designation: Glannau Ynys Gybi/Holy Island Coast SPA																																
EU Code: UK9013101																																
Distance to NSIP: 13.1km																																
European site features	**Likely effects of NSIP**																															
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*
A346 Red billed chough (Pyrrhocorax pyrrhocorax)	✓ **a**	✓ **a**	✓ **a**	✓ **b**	✓ **b**	✕ **b**	**c**	**c**	**c**	✕ **d**	✕ **d**	✕ **d**	**e**	**e**	**e**	✕ **f**	✕ **f**	✕ **f**	✕ **g**	✕ **g**	✕ **g**	✓ **h**	✓ **h**	✕ **h**	**i**	**i**	**i**	✕ **j**	✕ **j**	✕ **j**	✓ **k**	✓ **k**	✓ **k**

Evidence supporting conclusions:

a. Noise, vibration and visual disturbance have the potential to affect the behaviour of foraging roosting, commuting and breeding birds. LSE could not be excluded, as this species has the potential to be affected by the Project as they may be foraging within the ZOI (table 5.4 item 1).

b. Land-take associated with the Project includes both permanent and temporary habitat loss of grassland areas that support (red-billed) chough foraging. On this basis, LSE could not be excluded for this SPA (table 5.4 item 2) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

c. No LSE would arise for SPAs designated for chough for this screening category as chough feed in the terrestrial environment (i.e. there is no pathway for effect) (table 5.4 item 3b).

d. The Project is expected to give rise to changes in terrestrial water quality. However, no direct effect will occur on SPAs and, therefore, LSE can be excluded (table 5.4 item 4). Indirect effects due to consequent effects on marine water quality are considered in Note c (changes to marine water quality).

e. Changes in surface and groundwater hydrology associated with the Project are unlikely to result in an effect pathway; hence LSE can be excluded for this SPA (table 5.4 item 5b).

f. The Project has the potential to result in the spread of INNS in the marine environment. The works have the potential to both spread INNS that are already established on the site and elsewhere in the UK and result in the import of INNS from outside the UK. In order to manage these risks, Horizon will prepare one (or more) Biosecurity Risk Assessment(s) and Method Statement(s) to cover all activities. Horizon will implement a monitoring programme for non-native species. This will include observational surveys on structures that may provide suitable substrate for non-native species. Surveys will record presence/abundance of non-native species, with reporting in agreement with NRW. Monitoring survey requirements for specific sites will be set out in the sub-CoCPs where relevant. Where new presence of INNS is discovered, Biosecurity Risk Assessments and Method Statements will be reviewed and amended where necessary. Wherever appropriate, workers will be given an activity specific tool-box talk from an ECoW. This will include photographs of any INNS species known to be present on a site.

For the marine environment, an initial pre-construction survey will be undertaken and regular surveys will begin once construction of the breakwaters and MOLF is completed. The frequency and extent of monitoring will reduce over time, particularly once the MOLF is no longer operational. The ongoing requirement for monitoring will be regularly reviewed and agreed with NRW. Given these measures, LSE has been excluded in this context (table 5.4 item 6).

g. A Stage 1 Screening exercise has been undertaken in support of an Environmental Permit application under RSR (WN0908-HZCON-PAC-REP-00003). The results of the assessment demonstrate that the total dose rate predicted to arise due to the proposed Wylfa Newydd Power Station (alone and in combination with other sources) is below the relevant thresholds for the protection of European Designated Sites. Given these findings, LSE can be excluded due to change in radiation dose levels (table 5.4 item 7).

h. The precautionary ZOI identified for air quality overlaps with the Glannau Ynys Gybi/Holy Island Coast SPA. The screening assessment concludes that there is potential for LSE due to NOx emissions from construction plant, machinery and vessels. For the operating Power Station, operational combustion activity (MEEG operation and LOOP/LOCA scenario) could affect the SPA (table 5.4 item 8a).. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

i. No LSE would arise for chough for this screening category as chough feed in the terrestrial environment (i.e. there is no pathway for effect) (table 5.4 item 9b).

j. LSE can be excluded for chough as this species feeds in the terrestrial environment and there is no risk of entrapment within the circulating water intake or an effect on the food chain for chough due to entrainment and entrapment within the circulating water system. As a consequence, LSE can be excluded for this screening category for chough (table 5.4 item 10).

k. The potential for a LSIE with other plans and projects has been identified for this European Designated Site (appendix B).

HRA Screening Matrix F2.3: Ynys Seiriol/Puffin Island SPA

Name of European site and designation: Ynys Seiriol/Puffin Island SPA																																
EU Code: UK9020285																																
Distance to NSIP: 30.2km																																
European site features	**Likely effects of NSIP**																															
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*
A017 Great cormorant (Phalacrocorax carbo)	✓ **a**	✓ **a**	✓ **a**	✓ **b**	✓ **b**	✕ **b**	✓ **c**	✓ **c**	✓ **c**	✕ **d**	✕ **d**	✕ **d**	**e**	**e**	**e**	✕ **f**	✕ **f**	✕ **f**	✕ **g**	✕ **g**	✕ **g**	✕ **h**	✕ **h**	✕ **h**	✓ **i**	✓ **i**	✕ **i**	✓ **j**	✓ **j**	✕ **j**	✓ **k**	✓ **k**	✓ **k**

Evidence supporting conclusions:

a. Noise, vibration and visual disturbance have the potential to affect the behaviour of foraging roosting, commuting and breeding birds. This species has the potential to be affected by the project due to the fact that they may be foraging within the ZOI, therefore LSE could not be excluded (table 5.4 item 1).

b. Intertidal and subtidal land-take has the potential to impact on areas used by foraging birds through habitat loss and effects on prey species. This screening category includes the potential impact of the disposal of dredged material on subtidal habitat at Disposal Site. This species has the potential to be affected by the project due to the fact that they may be foraging within the ZOI, therefore LSE could not be excluded (table 5.4 item 2) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

c. Changes to marine water quality could affect prey species and the ability of birds to effectively forage for prey. This species has the potential to be affected by the project due to the fact that they may be foraging within the ZOI, therefore LSE could not be excluded (table 5.4 item 3a).

d. The Project is expected to give rise to changes in terrestrial water quality. However, no direct effect will occur on SPA sites and, therefore, LSE can be excluded (table 5.4 item 4). Indirect effects due to consequent effects on marine water quality are considered in Note c (changes to marine water quality).

e. For this SPA, and associated qualifying features, changes in surface and groundwater hydrology associated with the Project are unlikely to result in an effect pathway; hence LSE can be excluded (table 5.4 item 5b).

f. The Project has the potential to result in the spread of INNS in the marine environment. The works have the potential to both spread INNS that are already established on the site and elsewhere in the UK and result in the import of INNS from outside the UK. In order to manage these risks, Horizon will prepare one (or more) Biosecurity Risk Assessment(s) and Method Statement(s) to cover all activities. Horizon will implement a monitoring programme for non-native species. This will include observational surveys on structures that may provide suitable substrate for non-native species. Surveys will record presence/abundance of non-native species, with reporting in agreement with NRW. Monitoring survey requirements for specific sites will be set out in the sub-CoCPs where relevant. Where new presence of INNS is discovered, Biosecurity Risk Assessments and Method Statements will be reviewed and amended where necessary. Wherever appropriate, workers will

be given an activity specific tool-box talk from an ECoW. This will include photographs of any INNS species known to be present on a site.

For the marine environment, an initial pre-construction survey will be undertaken and regular surveys will begin once construction of the breakwaters and MOLF is completed. The frequency and extent of monitoring will reduce over time, particularly once the MOLF is no longer operational. The ongoing requirement for monitoring will be regularly reviewed and agreed with NRW. Given these measures, LSE has been excluded in this context (table 5.4 item 6).

g. A Stage 1 Screening exercise has been undertaken in support of an Environmental Permit application under Radiological Substances Regulations (RSR) (WN0908-HZCON-PAC-REP-00003). The results of the assessment demonstrate that the total dose rate predicted to arise due to the proposed Wylfa Newydd Power Station (alone and in combination with other sources) is below the relevant thresholds for the protection of European Designated Sites. Given these findings, LSE can be excluded due to change in radiation dose levels (table 5.4 item 7).

h. LSE can be excluded for this SPA because the site is outside the ZOI for changes to air quality (table 5.4 item 8b).

i. The potential for LSE could not be excluded for this SPA, due to potential changes to current flows and sediment transport pathways, which could affect prey species for birds (table 5.4 item 9a) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

j. Direct effects could occur, such as entrapment within the circulating water intake. More significantly the food chain for bird species could be affected by entrainment and entrapment within the circulating water system. As a consequence, LSE could not be excluded for this screening category (table 5.4 item 10) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

k. The potential for a LSIE with other plans and projects has been identified for this European Designated Site (appendix B).

HRA Screening Matrix F2.4: Glannau Aberdaron and Ynys Enlli/Aberdaron Coast Bardsey Island SPA

Name of European site and designation: Glannau Aberdaron and Ynys Enlli/Aberdaron Coast Bardsey Island SPA																																
EU Code: UK9013121																																
Distance to NSIP: 63.3km																																
European site features	**Likely effects of NSIP**																															
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*
A013 Manx shearwater (Puffinus puffinus)	✓ **a**	✓ **a**	✓ **a**	✓ **b**	✓ **b**	✕ **b**	✓ **c**	✓ **c**	✓ **c**	✕ **e**	✕ **e**	✕ **e**	**f**	**f**	**f**	✕ **g**	✕ **g**	✕ **g**	✕ **h**	✕ **h**	✕ **h**	✕ **i**	✕ **i**	✕ **i**	✓ **k**	✓ **k**	✕ **k**	✓ **m**	✓ **m**	✕ **m**	✓ **o**	✓ **o**	✓ **o**

A346 Red-billed chough (Pyrrh ocorax pyrrh ocorax)	✓ **a**	✓ **a**	✓ **a**	✓ **b**	✓ **b**	✕ **b**	**d**	**d**	**d**	✕ **e**	✕ **e**	✕ **e**	**f**	**f**	**f**	✕ **g**	✕ **g**	✕ **g**	✕ **h**	✕ **h**	✕ **h**	✓ **j**	✓ **j**	✕ **j**	**l**	**l**	**l**	✕ **n**	✕ **n**	✕ **n**	✓ **o**	✓ **o**	✓ **o**

Evidence supporting conclusions:

a. Noise, vibration and visual disturbance have the potential to affect the behaviour of foraging roosting, commuting and breeding birds. LSE could not be excluded, as this species has the potential to be affected by the Project as they may be foraging within the ZOI (table 5.4 item 1).

b. Intertidal and subtidal land-take has the potential to impact on areas used by foraging birds through habitat loss and effects on prey species. This screening category includes the potential impact of the disposal of dredged material on subtidal habitat at Disposal Site. Land-take associated with the Project also includes both permanent and temporary habitat loss of grassland areas that support (red-billed) chough foraging. On this basis, LSE could not be excluded for this SPA (table 5.4 item 2) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

c. Changes to marine water quality could affect prey species and the ability of birds to effectively forage for prey. LSE could not be excluded for shearwater, as this species has the potential to be affected by the project due to the fact that they may be foraging within the ZOI (table 5.4 item 3a).

d. No LSE would arise for chough for this screening category as chough feed in the terrestrial environment (i.e. there is no pathway for effect) (table 5.4 item 3b).

e. The Project is expected to give rise to changes in terrestrial water quality. However, no direct effect will occur on SPAs (table 5.4 item 4).) and, therefore, LSE can be excluded. Indirect effects due to consequent effects on marine water quality are considered in Notes c and d (changes to marine water quality).

f. Changes in surface and groundwater hydrology associated with the Project are unlikely to result in an effect pathway; hence LSE can be excluded for this SPA (table 5.4 item 5b).

g. The Project has the potential to result in the spread of INNS in the marine environment. The works have the potential to both spread INNS that are already established on the site and elsewhere in the UK and result in the import of INNS from outside the UK. In order to manage these risks, Horizon will prepare one (or more) Biosecurity Risk Assessment(s) and Method Statement(s) to cover all activities. Horizon will implement a monitoring programme for non-native species. This will include observational surveys on structures that may provide suitable substrate for non-native species. Surveys will record presence/abundance of non-native species, with reporting in agreement with NRW. Monitoring survey requirements for specific sites will be set out in the sub-CoCPs where relevant. Where new presence of INNS is discovered, Biosecurity Risk Assessments and Method Statements will be reviewed and amended where necessary. Wherever appropriate, workers will be given an activity specific tool-box talk from an ECoW. This will include photographs of any INNS species known to be present on a site.

For the marine environment, an initial pre-construction survey will be undertaken and regular surveys will begin once construction of the breakwaters and MOLF is completed. The frequency and extent of monitoring will reduce over time, particularly once the MOLF is no longer operational. The ongoing requirement for monitoring will be regularly reviewed and agreed with NRW. Given these measures, LSE has been excluded in this context (table 5.4 item 6).

h. A Stage 1 Screening exercise has been undertaken in support of an Environmental Permit application under RSR (WN0908-HZCON-PAC-REP-00003). The results of the assessment demonstrate that the total dose rate predicted to arise due to the proposed Wylfa Newydd Power Station (alone and in combination with other sources) is below the relevant thresholds for the protection of European Designated Sites. Given these findings, LSE can be excluded due to change in radiation dose levels (table 5.4 item 7).

i. LSE can be excluded for Manx shearwater because the site is outside the ZOI for changes to air quality (table 5.4 item 8b).

j. A precautionary approach has been taken to the assessment of SPAs designated for chough due to the fact that foraging habitat for this species may be affected by changes to air quality. On this basis, LSE could not be excluded for chough in this SPA (table 5.4 item 8a) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

k. The potential for LSE could not be excluded for Manx shearwater, due to potential changes to current flows and sediment transport pathways, which could affect prey species for birds (table 5.4 item 9a) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

l. No LSE would arise for chough for this screening category as chough feed in the terrestrial environment (i.e. there is no pathway for effect) (table 5.4 item 9b).

m. Direct effects on Manx shearwater could occur, such as entrapment within the circulating water intake. More significantly the food chain for this species could be affected by entrainment and entrapment within the circulating water system. As a consequence, LSE could not be excluded for this screening category for Manx shearwater (table 5.4 item 10) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

n. Direct LSE can be excluded for chough as this species feeds in the terrestrial environment and there is no risk of entrapment within the circulating water intake or an effect on the food chain for chough due to entrainment and entrapment within the circulating water system. As a consequence, LSE can be excluded for this screening category for chough (table 5.4 item 10).

o. The potential for a LSIE with other plans and projects has been identified for this European Designated Site (appendix B).

HRA Screening Matrix F2.5: Mynydd Cilan, Trwyn y Wylfa ac Ynysoedd Sant Tudwal/Mynydd Cilan, Trwyn y Wylfa and the St. Tudwal Islands SPA

Name of European site and designation: Mynydd Cilan, Trwyn y Wylfa ac Ynysoedd Sant Tudwal/Mynydd Cilan, Trwyn y Wylfa and the St. Tudwal Islands SPA																																
EU Code: UK9020282																																
Distance to NSIP: 65.1km																																
European site features	**Likely effects of NSIP**																															
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*
A346 Red billed chough (Pyrrhocorax pyrrhocorax)	✓ **a**	✓ **a**	✓ **a**	✓ **b**	✓ **b**	✗ **b**	**c**	**c**	**c**	✗ **d**	✗ **d**	✗ **d**	**e**	**e**	**e**	✗ **f**	✗ **f**	✗ **f**	✗ **g**	✗ **g**	✗ **g**	✓ **h**	✓ **h**	✗ **h**	**i**	**i**	**i**	✗ **j**	✗ **j**	✗ **j**	✓ **k**	✓ **k**	✓ **k**

Evidence supporting conclusions:

a. Noise, vibration and visual disturbance have the potential to affect the behaviour of foraging roosting, commuting and breeding birds. LSE could not be excluded, as this species has the potential to be affected by the Project due to their presence within the ZOI and the fact that they may be foraging within the ZOI (table 5.4 item 1).

b. Land-take associated with the Project includes both permanent and temporary habitat loss of grassland areas that support (red-billed) chough foraging. On this basis, LSE could not be excluded for this SPA (table 5.4 item 2) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

c. No LSE would arise for SPAs designated for chough for this screening category as chough feeds in the terrestrial environment (i.e. there is no pathway for effect) (table 5.4 item 3b).

d. The Project is expected to give rise to changes in terrestrial water quality. However, no direct effect will occur on SPAs and, therefore, LSE can be excluded (table 5.4 item 4). Indirect effects due to consequent effects on marine water quality are considered in Note c (changes to marine water quality).

e. Changes in surface and groundwater hydrology associated with the Project are unlikely to result in an effect pathway; hence LSE was can be excluded for this SPA (table 5.4 item 5b).

f. The Project has the potential to result in the spread of INNS in the marine environment. The works have the potential to both spread INNS that are already established on the site and elsewhere in the UK and result in the import of INNS from outside the UK. In order to manage these risks, Horizon will prepare one (or more) Biosecurity Risk Assessment(s) and Method Statement(s) to cover all activities. Horizon will implement a monitoring programme for non-native species. This will include observational surveys on structures that may provide suitable substrate for non-native species. Surveys will record presence/abundance of non-native species, with reporting in agreement with NRW. Monitoring survey requirements for specific sites will be set out in the sub-CoCPs where relevant. Where new presence of INNS is discovered, Biosecurity Risk Assessments and Method Statements will be reviewed and amended where necessary. Wherever appropriate, workers will be given an activity specific tool-box talk from an ECoW. This will include photographs of any INNS species known to be present on a site.

For the marine environment, an initial pre-construction survey will be undertaken and regular surveys will begin once construction of the breakwaters and MOLF is completed. The frequency and extent of monitoring will reduce over time, particularly once the MOLF is no longer operational. The ongoing requirement for monitoring will be regularly reviewed and agreed with NRW. Given these measures, LSE has been excluded in this context (table 5.4 item 6).

g. A Stage 1 Screening exercise has been undertaken in support of an Environmental Permit application under RSR (WN0908-HZCON-PAC-REP-00003). The results of the assessment demonstrate that the total dose rate predicted to arise due to the proposed Wylfa Newydd Power Station (alone and in combination with other sources) is below the relevant thresholds for the protection of European Designated Sites. Given these findings, LSE can be excluded due to change in radiation dose levels (table 5.4 item 7).

h. A precautionary approach has been taken to the assessment of SPAs designated for chough due to the fact that foraging habitat for this species may be affected by changes to air quality. On this basis, LSE could not be excluded for all SPAs scoped into the assessment for chough (table 5.4 item 8a) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

i. No LSE would arise for chough for this screening category as chough feed in the terrestrial environment (i.e. there is no pathway for effect) (table 5.4 item 9b).

j. Direct LSE can be excluded for chough as this species feeds in the terrestrial environment and there is no risk of entrapment within the circulating water intake or an effect on the food chain for chough due to entrainment and entrapment within the circulating water system. As a consequence, LSE can be excluded for this screening category for chough (table 5.4 item 10).

k. The potential for a LSIE with other plans and projects has been identified for this European Designated Site (appendix B).

HRA Screening Matrix F2.6: Aber Afen Dyfrdwy/Dee Estuary SPA

Name of European site and designation: Aber Afen Dyfrdwy/Dee Estuary SPA																																		
EU Code: UK9013011																																		
Distance to NSIP: 60.2km																																		
European site features	**Likely effects of NSIP**																																	
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*
A191 Sandwich tern (Sterna sandvicensis)	✓ **a**	✓ **a**	✓ **a**	✓ **b**	✓ **b**	✕ **b**	✓ **c**	✓ **c**	✓ **c**	✕ **d**	✕ **d**	✕ **d**	**e**	**e**	**e**	✕ **f**	✕ **f**	✕ **f**	✕ **g**	✕ **g**	✕ **g**	✕ **h**	✕ **h**	✕ **h**	✓ **i**	✓ **i**	✕ **i**	✓ **j**	✓ **j**	✕ **j**	✓ **k**	✓ **k**	✓ **k**

Evidence supporting conclusions:

a. Noise, vibration and visual disturbance have the potential to affect the behaviour of foraging roosting, commuting and breeding birds. This species has the potential to be affected by the project due to the fact that they may be foraging within the ZOI, therefore LSE could not be excluded (table 5.4 item 1).

b. Intertidal and subtidal land-take has the potential to impact on areas used by foraging birds through habitat loss and effects on prey species. This screening category includes the potential impact of the disposal of dredged material on subtidal habitat at Disposal Site. This species has the potential to be affected by the project due to the fact that they may be foraging within the ZOI, therefore LSE could not be excluded (table 5.4 item 2) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

c. Changes to marine water quality could affect prey species and the ability of birds to effectively forage for prey. This species has the potential to be affected by the project due to the fact that they may be foraging within the ZOI, therefore LSE could not be excluded (table 5.4 item 3a).

d. The Project is expected to give rise to changes in terrestrial water quality. However, no direct effect will occur on SPASPAs (table 5.4 item 4). Indirect effects due to consequent effects on marine water quality are considered in Note c (changes to marine water quality).

e. For this SPA, and associated qualifying features, changes in surface and groundwater hydrology associated with the Project are unlikely to result in an effect pathway; hence LSE can be excluded (table 5.4 item 5b).

f. The Project has the potential to result in the spread of INNS in the marine environment. The works have the potential to both spread INNS that are already established on the site and elsewhere in the UK and result in the import of INNS from outside the UK. In order to manage these risks, Horizon will prepare one (or more) Biosecurity Risk Assessment(s) and Method Statement(s) to cover all activities. Horizon will implement a monitoring programme for non-native species. This will include observational surveys on structures that may provide suitable substrate for non-native species. Surveys will record presence/abundance of non-native species, with reporting in agreement with NRW. Monitoring survey requirements for specific sites will be set out in the sub-CoCPs where relevant. Where new presence of INNS is discovered, Biosecurity Risk Assessments and Method Statements will be reviewed and amended where necessary. Wherever appropriate, workers will

be given an activity specific tool-box talk from an ECoW. This will include photographs of any INNS species known to be present on a site.

For the marine environment, an initial pre-construction survey will be undertaken and regular surveys will begin once construction of the breakwaters and MOLF is completed. The frequency and extent of monitoring will reduce over time, particularly once the MOLF is no longer operational. The ongoing requirement for monitoring will be regularly reviewed and agreed with NRW. Given these measures, LSE has been excluded in this context (table 5.4 item 6).

g. A Stage 1 Screening exercise has been undertaken in support of an Environmental Permit application under Radiological Substances Regulations (RSR) (WN0908-HZCON-PAC-REP-00003). The results of the assessment demonstrate that the total dose rate predicted to arise due to the proposed Wylfa Newydd Power Station (alone and in combination with other sources) is below the relevant thresholds for the protection of European Designated Sites. Given these findings, LSE can be excluded due to change in radiation dose levels (table 5.4 item 7).

h. LSE can be excluded for this SPA because the site is outside the ZOI for changes to air quality (table 5.4 item 8b).

i. The potential for LSE could not be excluded for this SPA, due to potential changes to current flows and sediment transport pathways, which could affect prey species for birds (table 5.4 item 9a) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

j. Direct effects could occur, such as entrapment within the circulating water intake. More significantly the food chain for bird species could be affected by entrainment and entrapment within the circulating water system. As a consequence, LSE could not be excluded for this screening category (table 5.4 item 10) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

k. The potential for a LSIE with other plans and projects has been identified for this European Designated Site (appendix B).

HRA Screening Matrix F2.7: Sgomer, Gogwm a moroedd Benfro/Skomer, Skokholm and the seas off Pembrokeshire SPA

Name of European site and designation: Sgomer, Gogwm a moroedd Benfro/Skomer, Skokholm and the seas off Pembrokeshire SPA																																	
EU Code: UK9014051																																	
Distance to NSIP: 187.1km																																	
European site features	**Likely effects of NSIP**																																
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*
A013 Manx shearwater (Puffinus puffinus)	✓ a	✓ a	✓ a	✓ b	✓ b	✕ b	✓ c	✓ c	✓ c	✕ d	✕ d	✕ d	e	e	e	✕ f	✕ f	✕ f	✕ g	✕ g	✕ g	✕ h	✕ h	✕ h	✓ i	✓ i	✕ i	✓ j	✓ j	✕ j	✓ k	✓ k	✓ k
Seabird assemblage of international importance	✓ a	✓ a	✓ a	✓ b	✓ b	✕ b	✓ c	✓ c	✓ c	✕ d	✕ d	✕ d	e	e	e	✕ f	✕ f	✕ f	✕ g	✕ g	✕ g	✕ h	✕ h	✕ h	✓ i	✓ i	✕ i	✓ j	✓ j	✕ j	✓ k	✓ k	✓ k

Evidence supporting conclusions:

a. Noise, vibration and visual disturbance have the potential to affect the behaviour of foraging roosting, commuting and breeding birds. This species has the potential to be affected by the project due to the fact that they may be foraging and/or breeding within the ZOI, therefore LSE could not be excluded (table 5.4 item 1).

b. Intertidal and subtidal land-take has the potential to impact on areas used by foraging birds through habitat loss and effects on prey species. This screening category includes the potential impact of the disposal of dredged material on subtidal habitat at Disposal Site. This species has the potential to be affected by the project due to the fact that they may be foraging within the ZOI, therefore LSE could not be excluded (table 5.4 item 2) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

c. Changes to marine water quality could affect prey species and the ability of birds to effectively forage for prey. This species has the potential to be affected by the project due to the fact that they may be foraging within the ZOI, therefore LSE could not be excluded (table 5.4 item 3a).

d. The Project is expected to give rise to changes in terrestrial water quality. However, no direct effect will occur on SPA sites (table 5.4 item 4). Indirect effects due to consequent effects on marine water quality are considered in Note c (changes to marine water quality).

e. For this SPA, and associated qualifying features, changes in surface and groundwater hydrology associated with the Project are unlikely to result in an effect pathway; hence no LSE was concluded (table 5.4 item 5b).

f. The Project has the potential to result in the spread of INNS in the marine environment. The works have the potential to both spread INNS that are already established on the site and elsewhere in the UK and result in the import of INNS from outside the UK. In order to manage these risks, Horizon will prepare one (or more) Biosecurity Risk Assessment(s) and Method Statement(s) to cover all activities. Horizon will implement a monitoring programme for non-native species. This will include observational surveys on structures that may provide suitable substrate for non-native species. Surveys will record presence/abundance of non-native species, with reporting in agreement with NRW. Monitoring survey requirements for specific sites will be set out in the sub-CoCPs where relevant. Where new presence of INNS is discovered, Biosecurity Risk Assessments and Method Statements will be reviewed and amended where necessary. Wherever appropriate, workers will

be given an activity specific tool-box talk from an ECoW. This will include photographs of any INNS species known to be present on a site.

For the marine environment, an initial pre-construction survey will be undertaken and regular surveys will begin once construction of the breakwaters and MOLF is completed. The frequency and extent of monitoring will reduce over time, particularly once the MOLF is no longer operational. The ongoing requirement for monitoring will be regularly reviewed and agreed with NRW. Given these measures, LSE has been excluded in this context (table 5.4 item 6).

g. A Stage 1 Screening exercise has been undertaken in support of an Environmental Permit application under Radiological Substances Regulations (RSR) (WN0908-HZCON-PAC-REP-00003). The results of the assessment demonstrate that the total dose rate predicted to arise due to the proposed Wylfa Newydd Power Station (alone and in combination with other sources) is below the relevant thresholds for the protection of European Designated Sites. Given these findings, no LSE can be concluded due to change in radiation dose levels (table 5.4 item 7).

h. LSE can be excluded for this SPA because the site is outside the ZOI for changes to air quality (table 5.4 item 8b).

i. The potential for LSE could not be excluded for this SPA, due to potential changes to current flows and sediment transport pathways, which could affect habitats within the designated site and prey species for birds (table 5.4 item 9a) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

j. Direct effects could occur, such as entrapment within the circulating water intake. More significantly the food chain for bird species could be affected by entrainment and entrapment within the circulating water system. As a consequence, LSE could not be excluded for this screening category (table 5.4 item 10) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

k. The potential for a LSIE with other plans and projects has been identified for this European Designated Site (appendix B).

HRA Screening Matrix F2.8: Grassholm SPA

Name of European site and designation: Grassholm SPA																																
EU Code: UK9014041																																
Distance to NSIP: 194.8km																																
European site features	**Likely effects of NSIP**																															
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*
A016 Gannet (Morus bassanus)	✓ **a**	✓ **a**	✓ **a**	✓ **b**	✓ **b**	✕ **b**	✓ **c**	✓ **c**	✓ **c**	✕ **d**	✕ **d**	✕ **d**	**e**	**e**	**e**	✕ **f**	✕ **f**	✕ **f**	✕ **g**	✕ **g**	✕ **g**	✕ **h**	✕ **h**	✕ **h**	✓ **i**	✓ **i**	✕ **i**	✓ **j**	✓ **j**	✕ **j**	✓ **k**	✓ **k**	✓ **k**

Evidence supporting conclusions:

a. Noise, vibration and visual disturbance have the potential to affect the behaviour of foraging roosting, commuting and breeding birds. This species has the potential to be affected by the project due to the fact that they may be foraging within the ZOI, therefore LSE could not be excluded (table 5.4 item 1).

b. Intertidal and subtidal land-take has the potential to impact on areas used by foraging birds through habitat loss and effects on prey species. This screening category includes the potential impact of the disposal of dredged material on subtidal habitat at Disposal Site. This species has the potential to be affected by the project due to the fact that they may be foraging within the ZOI, therefore LSE could not be excluded (table 5.4 item 2) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

c. Changes to marine water quality could affect prey species and the ability of birds to effectively forage for prey. This species has the potential to be affected by the project due to the fact that they may be foraging within the ZOI, therefore LSE could not be excluded (table 5.4 item 3a).

d. The Project is expected to give rise to changes in terrestrial water quality. However, no direct effect will occur on SPA sites and, therefore, LSE can be excluded (table 5.4 item 4). Indirect effects due to consequent effects on marine water quality are considered in Note c (changes to marine water quality).

e. For this SPA, and associated qualifying features, changes in surface and groundwater hydrology associated with the Project are unlikely to result in an effect pathway; hence LSE can be excluded (table 5.4 item 5b).

f. The Project has the potential to result in the spread of INNS in the marine environment. The works have the potential to both spread INNS that are already established on the site and elsewhere in the UK and result in the import of INNS from outside the UK. In order to manage these risks, Horizon will prepare one (or more) Biosecurity Risk Assessment(s) and Method Statement(s) to cover all activities. Horizon will implement a monitoring programme for non-native species. This will include observational surveys on structures that may provide suitable substrate for non-native species. Surveys will record presence/abundance of non-native species, with reporting in agreement with NRW. Monitoring survey requirements for specific sites will be set out in the sub-CoCPs where relevant. Where new presence of INNS is discovered, Biosecurity Risk Assessments and Method Statements will be reviewed and amended where necessary. Wherever appropriate, workers will

be given an activity specific tool-box talk from an ECoW. This will include photographs of any INNS species known to be present on a site.

For the marine environment, an initial pre-construction survey will be undertaken and regular surveys will begin once construction of the breakwaters and MOLF is completed. The frequency and extent of monitoring will reduce over time, particularly once the MOLF is no longer operational. The ongoing requirement for monitoring will be regularly reviewed and agreed with NRW. Given these measures, LSE has been excluded in this context (table 5.4 item 6).

g. A Stage 1 Screening exercise has been undertaken in support of an Environmental Permit application under Radiological Substances Regulations (RSR) (WN0908-HZCON-PAC-REP-00003). The results of the assessment demonstrate that the total dose rate predicted to arise due to the proposed Wylfa Newydd Power Station (alone and in combination with other sources) is below the relevant thresholds for the protection of European Designated Sites. Given these findings, LSE can be excluded due to change in radiation dose levels (table 5.4 item 7).

h. LSE can be excluded for this SPA because the site is outside the ZOI for changes to air quality (table 5.4 item 8b).

i. The potential for LSE could not be excluded for this SPA, due to potential changes to current flows and sediment transport pathways, which could affect prey species for birds (table 5.4 item 9a) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

j. Direct effects could occur, such as entrapment within the circulating water intake. More significantly the food chain for bird species could be affected by entrainment and entrapment within the circulating water system. As a consequence, LSE could not be excluded for this screening category (table 5.4 item 10) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

k. The potential for a LSIE with other plans and projects has been identified for this European Designated Site (appendix B).

HRA Screening Matrix F2.9: Mersey Narrows and North Wirral Foreshore SPA

Name of European site and designation: Mersey Narrows and North Wirral Foreshore SPA

EU Code: UK9020287

Distance to NSIP: 82km

European site features	**Likely effects of NSIP**																																	
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*
A193 Common tern (Sterna hirundo)	✓ **a**	✓ **a**	✓ **a**	✓ **b**	✓ **b**	✗ **b**	✓ **c**	✓ **c**	✓ **c**	✗ **d**	✗ **d**	✗ **d**	**e**	**e**	**e**	✗ **f**	✗ **f**	✗ **f**	✗ **g**	✗ **g**	✗ **g**	✗ **h**	✗ **h**	✗ **h**	✓ **i**	✓ **i**	✗ **i**	✓ **j**	✓ **j**	✗ **j**	✓ **k**	✓ **k**	✓ **k**

Evidence supporting conclusions:

a. Noise, vibration and visual disturbance have the potential to affect the behaviour of foraging roosting, commuting and breeding birds. This species has the potential to be affected by the project due to the fact that they may be foraging within the ZOI, therefore LSE could not be excluded (table 5.4 item 1).

b. Intertidal and subtidal land-take has the potential to impact on areas used by foraging birds through habitat loss and effects on prey species. This screening category includes the potential impact of the disposal of dredged material on subtidal habitat at Disposal Site. This species has the potential to be affected by the project due to the fact that they may be foraging within the ZOI, therefore LSE could not be excluded (table 5.4 item 2) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

c. Changes to marine water quality could affect prey species and the ability of birds to effectively forage for prey. This species has the potential to be affected by the project due to the fact that they may be foraging within the ZOI, therefore LSE could not be excluded (table 5.4 item 3a).

d. The Project is expected to give rise to changes in terrestrial water quality. However, no direct effect will occur on SPA sites and, therefore, LSE can be excluded (table 5.4 item 4). Indirect effects due to consequent effects on marine water quality are considered in Note c (changes to marine water quality).

e. For this SPA, and associated qualifying features, changes in surface and groundwater hydrology associated with the Project are unlikely to result in an effect pathway; hence LSE can be excluded (table 5.4 item 5b).

f. The Project has the potential to result in the spread of INNS in the marine environment. The works have the potential to both spread INNS that are already established on the site and elsewhere in the UK and result in the import of INNS from outside the UK. In order to manage these risks, Horizon will prepare one (or more) Biosecurity Risk Assessment(s) and Method Statement(s) to cover all activities. Horizon will implement a monitoring programme for non-native species. This will include observational surveys on structures that may provide suitable substrate for non-native species. Surveys will record presence/abundance of non-native species, with reporting in agreement with NRW. Monitoring survey requirements for specific sites will be set out in the sub-CoCPs where relevant. Where new presence of INNS is discovered, Biosecurity Risk Assessments and Method Statements will be reviewed and amended where necessary. Wherever appropriate, workers will

be given an activity specific tool-box talk from an ECoW. This will include photographs of any INNS species known to be present on a site.

For the marine environment, an initial pre-construction survey will be undertaken and regular surveys will begin once construction of the breakwaters and MOLF is completed. The frequency and extent of monitoring will reduce over time, particularly once the MOLF is no longer operational. The ongoing requirement for monitoring will be regularly reviewed and agreed with NRW. Given these measures, LSE has been excluded in this context (table 5.4 item 6).

g. A Stage 1 Screening exercise has been undertaken in support of an Environmental Permit application under Radiological Substances Regulations (RSR) (WN0908-HZCON-PAC-REP-00003). The results of the assessment demonstrate that the total dose rate predicted to arise due to the proposed Wylfa Newydd Power Station (alone and in combination with other sources) is below the relevant thresholds for the protection of European Designated Sites. Given these findings, LSE can be excluded due to change in radiation dose levels (table 5.4 item 7).

h. LSE can be excluded for this SPA because the site is outside the ZOI for changes to air quality (table 5.4 item 8b).

i. The potential for LSE could not be excluded for this SPA, due to potential changes to current flows and sediment transport pathways, which could affect prey species for birds (table 5.4 item 9a) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

j. Direct effects could occur, such as entrapment within the circulating water intake. More significantly the food chain for bird species could be affected by entrainment and entrapment within the circulating water system. As a consequence, LSE could not be excluded for this screening category (table 5.4 item 10) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

k. The potential for a LSIE with other plans and projects has been identified for this European Designated Site (appendix B).

HRA Screening Matrix F2.10: Ribble and Alt Estuaries SPA

Name of European site and designation: Ribble and Alt Estuaries SPA																																
EU Code: UK9005103																																
Distance to NSIP: 87.6km																																
European site features	**Likely effects of NSIP**																															
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*
A183 Lesser black-backed gull (Larus fuscus)	✓ **a**	✓ **a**	✓ **a**	✓ **b**	✓ **b**	✕ **b**	✓ **c**	✓ **c**	✓ **c**	✕ **d**	✕ **d**	✕ **d**	**e**	**e**	**e**	✕ **f**	✕ **f**	✕ **f**	✕ **g**	✕ **g**	✕ **g**	✕ **h**	✕ **h**	✕ **h**	✓ **i**	✓ **i**	✕ **i**	✓ **j**	✓ **j**	✕ **j**	✓ **k**	✓ **k**	✓ **k**

Evidence supporting conclusions:

a. Noise, vibration and visual disturbance have the potential to affect the behaviour of foraging roosting, commuting and breeding birds. This species has the potential to be affected by the project due to the fact that they may be foraging within the ZOI, therefore LSE could not be excluded (table 5.4 item 1).

b. Intertidal and subtidal land-take has the potential to impact on areas used by foraging birds through habitat loss and effects on prey species. This screening category includes the potential impact of the disposal of dredged material on subtidal habitat at Disposal Site. This species has the potential to be affected by the project due to the fact that they may be foraging within the ZOI, therefore LSE could not be excluded (table 5.4 item 2) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

c. Changes to marine water quality could affect prey species and the ability of birds to effectively forage for prey. This species has the potential to be affected by the project due to the fact that they may be foraging within the ZOI, therefore LSE could not be excluded (table 5.4 item 3a).

d. The Project is expected to give rise to changes in terrestrial water quality. However, no direct effect will occur on SPA sites and, therefore, LSE can be excluded (table 5.4 item 4). Indirect effects due to consequent effects on marine water quality are considered in Note c (changes to marine water quality).

e. For this SPA, and associated qualifying features, changes in surface and groundwater hydrology associated with the Project are unlikely to result in an effect pathway; hence LSE can be excluded (table 5.4 item 5b).

f. The Project has the potential to result in the spread of INNS in the marine environment. The works have the potential to both spread INNS that are already established on the site and elsewhere in the UK and result in the import of INNS from outside the UK. In order to manage these risks, Horizon will prepare one (or more) Biosecurity Risk Assessment(s) and Method Statement(s) to cover all activities. Horizon will implement a monitoring programme for non-native species. This will include observational surveys on structures that may provide suitable substrate for non-native species. Surveys will record presence/abundance of non-native species, with reporting in agreement with NRW. Monitoring survey requirements for specific sites will be set out in the sub-CoCPs where relevant. Where new presence of INNS is discovered, Biosecurity Risk Assessments and Method Statements will be reviewed and amended where necessary. Wherever appropriate, workers will

be given an activity specific tool-box talk from an ECoW. This will include photographs of any INNS species known to be present on a site.

For the marine environment, an initial pre-construction survey will be undertaken and regular surveys will begin once construction of the breakwaters and MOLF is completed. The frequency and extent of monitoring will reduce over time, particularly once the MOLF is no longer operational. The ongoing requirement for monitoring will be regularly reviewed and agreed with NRW. Given these measures, LSE has been excluded in this context (table 5.4 item 6).

g. A Stage 1 Screening exercise has been undertaken in support of an Environmental Permit application under Radiological Substances Regulations (RSR) (WN0908-HZCON-PAC-REP-00003). The results of the assessment demonstrate that the total dose rate predicted to arise due to the proposed Wylfa Newydd Power Station (alone and in combination with other sources) is below the relevant thresholds for the protection of European Designated Sites. Given these findings, LSE can be excluded due to change in radiation dose levels (table 5.4 item 7).

h. LSE can be excluded for this SPA because the site is outside the ZOI for changes to air quality (table 5.4 item 8b).

i. The potential for LSE could not be excluded for this SPA, due to potential changes to current flows and sediment transport pathways, which could affect prey species for birds (table 5.4 item 9a) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

j. Direct effects could occur, such as entrapment within the circulating water intake. More significantly the food chain for bird species could be affected by entrainment and entrapment within the circulating water system. As a consequence, LSE could not be excluded for this screening category (table 5.4 item 10) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

k. The potential for a LSIE with other plans and projects has been identified for this European Designated Site (appendix B).

HRA Screening Matrix F2.11: Morecambe Bay SPA

Name of European site and designation: Morecambe Bay SPA																																
EU Code: UK9005081																																
Distance to NSIP: 106.1km																																
European site features	**Likely effects of NSIP**																															
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*
SBA Seabird assemblage of international importance (herring gull and lesser black-backed gull)	✓ **a**	✓ **a**	✓ **a**	✓ **b**	✓ **b**	✗ **b**	✓ **c**	✓ **c**	✓ **c**	✗ **d**	✗ **d**	✗ **d**	**e**	**e**	**e**	✗ **f**	✗ **f**	✗ **f**	✗ **g**	✗ **g**	✗ **g**	✗ **h**	✗ **h**	✗ **h**	✓ **i**	✓ **i**	✗ **i**	✓ **j**	✓ **j**	✗ **j**	✓ **k**	✓ **k**	✓ **k**

Evidence supporting conclusions:

a. Noise, vibration and visual disturbance have the potential to affect the behaviour of foraging roosting, commuting and breeding birds. This assemblage of species has the potential to be affected by the project due to the fact that they may be foraging within the ZOI, therefore LSE could not be excluded (table 5.4 item 1).

b. Intertidal and subtidal land-take has the potential to impact on areas used by foraging birds through habitat loss and effects on prey species. This screening category includes the potential impact of the disposal of dredged material on subtidal habitat at Disposal Site. This assemblage of species has the potential to be affected by the project due to the fact that they may be foraging within the ZOI, therefore LSE could not be excluded (table 5.4 item 2) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

c. Changes to marine water quality could affect prey species and the ability of birds to effectively forage for prey. This assemblage of species has the potential to be affected by the project due to the fact that they may be foraging within the ZOI, therefore LSE could not be excluded (table 5.4 item 3a).

d. The Project is expected to give rise to changes in terrestrial water quality. However, no direct effect will occur on SPA sites and, therefore, LSE can be excluded (table 5.4 item 4). Indirect effects due to consequent effects on marine water quality are considered in Note c (changes to marine water quality).

e. For this SPA, and associated qualifying features, changes in surface and groundwater hydrology associated with the Project are unlikely to result in an effect pathway; hence no LSE was concluded (table 5.4 item 5b).

f. The Project has the potential to result in the spread of INNS in the marine environment. The works have the potential to both spread INNS that are already established on the site and elsewhere in the UK and result in the import of INNS from outside the UK. In order to manage these risks, Horizon will prepare one (or more) Biosecurity Risk Assessment(s) and Method Statement(s) to cover all activities. Horizon will implement a monitoring programme for non-native species. This will include observational surveys on structures that may provide suitable substrate for non-native species. Surveys will record presence/abundance of non-native species, with reporting in agreement with NRW. Monitoring survey requirements for specific sites will be set out in the sub-CoCPs where relevant. Where new presence of INNS is discovered, Biosecurity Risk Assessments and Method Statements will be reviewed and amended where necessary. Wherever appropriate, workers will

be given an activity specific tool-box talk from an ECoW. This will include photographs of any INNS species known to be present on a site.

For the marine environment, an initial pre-construction survey will be undertaken and regular surveys will begin once construction of the breakwaters and MOLF is completed. The frequency and extent of monitoring will reduce over time, particularly once the MOLF is no longer operational. The ongoing requirement for monitoring will be regularly reviewed and agreed with NRW. Given these measures, LSE has been excluded in this context (table 5.4 item 6).

g. A Stage 1 Screening exercise has been undertaken in support of an Environmental Permit application under Radiological Substances Regulations (RSR) (WN0908-HZCON-PAC-REP-00003). The results of the assessment demonstrate that the total dose rate predicted to arise due to the proposed Wylfa Newydd Power Station (alone and in combination with other sources) is below the relevant thresholds for the protection of European Designated Sites. Given these findings, LSE can be excluded due to change in radiation dose levels (table 5.4 item 7).

h. LSE can be excluded for this SPA because the site is outside the ZOI for changes to air quality (table 5.4 item 8b).

i. The potential for LSE could not be excluded for this SPA, due to potential changes to current flows and sediment transport pathways, which could affect prey species for birds (table 5.4 item 9a) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

j. Direct effects could occur, such as entrapment within the circulating water intake. More significantly the food chain for bird species could be affected by entrainment and entrapment within the circulating water system. As a consequence, LSE could not be excluded for this screening category (table 5.4 item 10) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

k. The potential for a LSIE with other plans and projects has been identified for this European Designated Site (appendix B).

HRA Screening Matrix F2.12: Morecambe Bay and Duddon Estuary SPA

Name of European site and designation: Morecambe Bay and Duddon Estuary SPA																																
EU Code: UK9005081																																
Distance to NSIP: 106.1km																																
European site features	**Likely effects of NSIP**																															
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*
A183 Lesser black-backed gull (Larus fuscus)	✓ **a**	✓ **a**	✓ **a**	✓ **b**	✓ **b**	✕ **b**	✓ **c**	✓ **c**	✓ **c**	✕ **d**	✕ **d**	✕ **d**	**e**	**e**	**e**	✕ **f**	✕ **f**	✕ **f**	✕ **g**	✕ **g**	✕ **g**	✕ **h**	✕ **h**	✕ **h**	✓ **i**	✓ **i**	✕ **i**	✓ **j**	✓ **j**	✕ **j**	✓ **k**	✓ **k**	✓ **k**

SBA Seabird assemblage of interna tional importance (herring gull and lesser black-backed gull)	✓ **a**	✓ **a**	✓ **a**	✓ **b**	✓ **b**	✗ **b**	✓ **c**	✓ **c**	✓ **c**	✗ **d**	✗ **d**	✗ **d**	**e**	**e**	**e**	✗ **f**	✗ **f**	✗ **f**	✗ **g**	✗ **g**	✗ **g**	✗ **h**	✗ **h**	✗ **h**	✓ **i**	✓ **i**	✗ **i**	✓ **j**	✓ **j**	✗ **j**	✓ **k**	✓ **k**	✓ **k**

Evidence supporting conclusions:

a. Noise, vibration and visual disturbance have the potential to affect the behaviour of foraging roosting, commuting and breeding birds. This assemblage of species has the potential to be affected by the project due to the fact that they may be foraging within the ZOI, therefore LSE could not be excluded (table 5.4 item 1).

b. Intertidal and subtidal land-take has the potential to impact on areas used by foraging birds through habitat loss and effects on prey species. This screening category includes the potential impact of the disposal of dredged material on subtidal habitat at Disposal Site. This assemblage of species has the potential to be affected by the project due to the fact that they may be foraging within the ZOI, therefore LSE could not be excluded (table 5.4 item 2) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

c. Changes to marine water quality could affect prey species and the ability of birds to effectively forage for prey. This assemblage of species has the potential to be affected by the project due to the fact that they may be foraging within the ZOI, therefore LSE could not be excluded (table 5.4 item 3a).

d. The Project is expected to give rise to changes in terrestrial water quality. However, no direct effect will occur on SPA or pSPA sites and, therefore, LSE can be excluded (table 5.4 item 4). Indirect effects due to consequent effects on marine water quality are considered in Note c (changes to marine water quality).

e. For this pSPA, and associated qualifying features, changes in surface and groundwater hydrology associated with the Project are unlikely to result in an effect pathway; hence no LSE was concluded (table 5.4 item 5b).

f. The Project has the potential to result in the spread of INNS in the marine environment. The works have the potential to both spread INNS that are already established on the site and elsewhere in the UK and result in the import of INNS from outside the UK. In order to manage these risks, Horizon will prepare one (or more) Biosecurity Risk Assessment(s) and Method Statement(s) to cover all activities. Horizon will implement a monitoring programme for non-native species. This will include observational surveys on structures that may provide suitable substrate for non-native species. Surveys will record presence/abundance of non-native species, with reporting in agreement with NRW. Monitoring survey requirements for specific sites will be set out in the sub-CoCPs where relevant. Where new presence of INNS is discovered, Biosecurity Risk Assessments and Method Statements will be reviewed and amended where necessary. Wherever appropriate, workers will be given an activity specific tool-box talk from an ECoW. This will include photographs of any INNS species known to be present on a site.

For the marine environment, an initial pre-construction survey will be undertaken and regular surveys will begin once construction of the breakwaters and MOLF is completed. The frequency and extent of monitoring will reduce over time, particularly once the MOLF is no longer operational. The ongoing requirement for monitoring will be regularly reviewed and agreed with NRW. Given these measures, LSE has been excluded in this context (table 5.4 item 6).

g. A Stage 1 Screening exercise has been undertaken in support of an Environmental Permit application under Radiological Substances Regulations (RSR) (WN0908-HZCON-PAC-REP-00003). The results of the assessment demonstrate that the total dose rate predicted to arise due to the proposed Wylfa Newydd Power Station (alone and in combination with other sources) is below the relevant thresholds for the protection of European Designated Sites. Given these findings, LSE can be excluded due to change in radiation dose levels (table 5.4 item 7).

h. LSE can be excluded for this pSPA because the site is outside the ZOI for changes to air quality (table 5.4 item 8b).

i. The potential for LSE could not be excluded for this pSPA, due to potential changes to current flows and sediment transport pathways, which could affect prey species for birds (table 5.4 item 9a) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

j. Direct effects could occur, such as entrapment within the circulating water intake. More significantly the food chain for bird species could be affected by entrainment and entrapment within the circulating water system. As a consequence, LSE could not be excluded for this screening category (table 5.4 item 10) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

k. The potential for a LSIE with other plans and projects has been identified for this European Designated Site (appendix B).

HRA Screening Matrix F2.13: Bowland Fells SPA

Name of European site and designation: Bowland Fells SPA																																
EU Code: UK9005151																																
Distance to NSIP: 128.8km																																
European site features	**Likely effects of NSIP**																															
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*
A183 Lesser black-backed gull (Larus fuscus)	✓ **a**	✓ **a**	✓ **a**	✓ **b**	✓ **b**	✕ **b**	✓ **c**	✓ **c**	✓ **c**	✕ **d**	✕ **d**	✕ **d**	**e**	**e**	**e**	✕ **f**	✕ **f**	✕ **f**	✕ **g**	✕ **g**	✕ **g**	✕ **h**	✕ **h**	✕ **h**	✓ **i**	✓ **i**	✕ **i**	✓ **j**	✓ **j**	✕ **j**	✓ **k**	✓ **k**	✓ **k**

Evidence supporting conclusions:

a. Noise, vibration and visual disturbance have the potential to affect the behaviour of foraging roosting, commuting and breeding birds. This species has the potential to be affected by the project due to the fact that they may be foraging within the ZOI, therefore LSE could not be excluded (table 5.4 item 1).

b. Intertidal and subtidal land-take has the potential to impact on areas used by foraging birds through habitat loss and effects on prey species. This screening category includes the potential impact of the disposal of dredged material on subtidal habitat at Disposal Site. This species has the potential to be affected by the project due to the fact that they may be foraging within the ZOI, therefore LSE could not be excluded (table 5.4 item 2) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

c. Changes to marine water quality could affect prey species and the ability of birds to effectively forage for prey. This species has the potential to be affected by the project due to the fact that they may be foraging within the ZOI, therefore LSE could not be excluded (table 5.4 item 3a).

d. The Project is expected to give rise to changes in terrestrial water quality. However, no direct effect will occur on SPA sites and, therefore, LSE can be excluded (table 5.4 item 4). Indirect effects due to consequent effects on marine water quality are considered in Note c (changes to marine water quality).

e. For this SPA, and associated qualifying features, changes in surface and groundwater hydrology associated with the Project are unlikely to result in an effect pathway; hence LSE can be excluded (table 5.4 item 5b).

f. The Project has the potential to result in the spread of INNS in the marine environment. The works have the potential to both spread INNS that are already established on the site and elsewhere in the UK and result in the import of INNS from outside the UK. In order to manage these risks, Horizon will prepare one (or more) Biosecurity Risk Assessment(s) and Method Statement(s) to cover all activities. Horizon will implement a monitoring programme for non-native species. This will include observational surveys on structures that may provide suitable substrate for non-native species. Surveys will record presence/abundance of non-native species, with reporting in agreement with NRW. Monitoring survey requirements for specific sites will be set out in the sub-CoCPs where relevant. Where new presence of INNS is discovered, Biosecurity Risk Assessments and Method Statements will be reviewed and amended where necessary. Wherever appropriate, workers will

be given an activity specific tool-box talk from an ECoW. This will include photographs of any INNS species known to be present on a site.

For the marine environment, an initial pre-construction survey will be undertaken and regular surveys will begin once construction of the breakwaters and MOLF is completed. The frequency and extent of monitoring will reduce over time, particularly once the MOLF is no longer operational. The ongoing requirement for monitoring will be regularly reviewed and agreed with NRW. Given these measures, LSE has been excluded in this context (table 5.4 item 6).

g. A Stage 1 Screening exercise has been undertaken in support of an Environmental Permit application under Radiological Substances Regulations (RSR) (WN0908-HZCON-PAC-REP-00003). The results of the assessment demonstrate that the total dose rate predicted to arise due to the proposed Wylfa Newydd Power Station (alone and in combination with other sources) is below the relevant thresholds for the protection of European Designated Sites. Given these findings, LSE can be excluded due to change in radiation dose levels (table 5.4 item 7).

h. LSE can be excluded for this SPA because the site is outside the ZOI for changes to air quality (table 5.4 item 8b).

i. The potential for LSE could not be excluded for this SPA, due to potential changes to current flows and sediment transport pathways, which could affect prey species for birds (table 5.4 item 9a) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

j. Direct effects could occur, such as entrapment within the circulating water intake. More significantly the food chain for bird species could be affected by entrainment and entrapment within the circulating water system. As a consequence, LSE could not be excluded for this screening category (table 5.4 item 10) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

k. The potential for a LSIE with other plans and projects has been identified for this European Designated Site (appendix B).

HRA Screening Matrix F2.14: Lambay Island SPA

Name of European site and designation: Lambay Island SPA																																	
EU Code: 004069																																	
Distance to NSIP: 99km																																	
European site features	**Likely effects of NSIP**																																
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*
A009 Fulmar (Fulmarus glacialis)	✓ a	✓ a	✓ a	✓ b	✓ b	✗ b	✓ c	✓ c	✓ c	✗ d	✗ d	✗ d	e	e	e	✗ f	✗ f	✗ f	✗ g	✗ g	✗ g	✗ h	✗ h	✗ h	✓ i	✓ i	✗ i	✓ j	✓ j	✗ j	✗ k	✗ k	✗ k
A183 Lesser black-backed gull (Larus fuscus)	✓ a	✓ a	✓ a	✓ b	✓ b	✗ b	✓ c	✓ c	✓ c	✗ d	✗ d	✗ d	e	e	e	✗ f	✗ f	✗ f	✗ g	✗ g	✗ g	✗ h	✗ h	✗ h	✓ i	✓ i	✗ i	✓ j	✓ j	✗ j	✗ k	✗ k	✗ k
A199 Guillemot (Uria aalge)	✓ a	✓ a	✓ a	✓ b	✓ b	✗ b	✓ c	✓ c	✓ c	✗ d	✗ d	✗ d	e	e	e	✗ f	✗ f	✗ f	✗ g	✗ g	✗ g	✗ h	✗ h	✗ h	✓ i	✓ i	✗ i	✓ j	✓ j	✗ j	✗ k	✗ k	✗ k

A204 Puffin (Fratercula arctica)	✓ a	✓ a	✓ a	✓ b	✓ b	✗ b	✓ c	✓ c	✓ c	✗ d	✗ d	✗ d	e	e	e	✗ f	✗ f	✗ f	✗ g	✗ g	✗ g	✗ h	✗ h	✗ h	✓ i	✓ i	✗ i	✓ j	✓ j	✗ j	✗ k	✗ k	✗ k

Evidence supporting conclusions:

a. Noise, vibration and visual disturbance have the potential to affect the behaviour of foraging roosting, commuting and breeding birds. This assemblage of species has the potential to be affected by the project due to the fact that they may be foraging within the ZOI, therefore LSE could not be excluded (table 5.4 item 1).

b. Intertidal and subtidal land-take has the potential to impact on areas used by foraging birds through habitat loss and effects on prey species. This screening category includes the potential impact of the disposal of dredged material on subtidal habitat at Disposal Site. This assemblage of species has the potential to be affected by the project due to the fact that they may be foraging within the ZOI, therefore LSE could not be excluded (table 5.4 item 2) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

c. Changes to marine water quality could affect prey species and the ability of birds to effectively forage for prey. This assemblage of species has the potential to be affected by the project due to the fact that they may be foraging within the ZOI, therefore LSE could not be excluded (table 5.4 item 3a).

d. The Project is expected to give rise to changes in terrestrial water quality. However, no direct effect will occur on SPA sites and, therefore, LSE can be excluded (table 5.4 item 4). Indirect effects due to consequent effects on marine water quality are considered in Note c (changes to marine water quality).

e. For this SPA, and associated qualifying features, changes in surface and groundwater hydrology associated with the Project are unlikely to result in an effect pathway; hence no LSE was concluded (table 5.4 item 5b).

f. The Project has the potential to result in the spread of INNS in the marine environment. The works have the potential to both spread INNS that are already established on the site and elsewhere in the UK and result in the import of INNS from outside the UK. In order to manage these risks, Horizon will prepare one (or more) Biosecurity Risk Assessment(s) and Method Statement(s) to cover all activities. Horizon will implement a monitoring programme for non-native species. This will include observational surveys on structures that may provide suitable substrate for non-native species. Surveys will record

presence/abundance of non-native species, with reporting in agreement with NRW. Monitoring survey requirements for specific sites will be set out in the sub-CoCPs where relevant. Where new presence of INNS is discovered, Biosecurity Risk Assessments and Method Statements will be reviewed and amended where necessary. Wherever appropriate, workers will be given an activity specific tool-box talk from an ECoW. This will include photographs of any INNS species known to be present on a site.

For the marine environment, an initial pre-construction survey will be undertaken and regular surveys will begin once construction of the breakwaters and MOLF is completed. The frequency and extent of monitoring will reduce over time, particularly once the MOLF is no longer operational. The ongoing requirement for monitoring will be regularly reviewed and agreed with NRW. Given these measures, LSE has been excluded in this context (table 5.4 item 6).

g. A Stage 1 Screening exercise has been undertaken in support of an Environmental Permit application under Radiological Substances Regulations (RSR) (WN0908-HZCON-PAC-REP-00003). The results of the assessment demonstrate that the total dose rate predicted to arise due to the proposed Wylfa Newydd Power Station (alone and in combination with other sources) is below the relevant thresholds for the protection of European Designated Sites. Given these findings, LSE can be excluded due to change in radiation dose levels (table 5.4 item 7).

h. LSE can be excluded for this SPA because the site is outside the ZOI for changes to air quality (table 5.4 item 8b).

i. The potential for LSE could not be excluded for this SPA, due to potential changes to current flows and sediment transport pathways, which could affect prey species for birds (table 5.4 item 9a) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

j. Direct effects could occur, such as entrapment within the circulating water intake. More significantly the food chain for bird species could be affected by entrainment and entrapment within the circulating water system. As a consequence, LSE could not be excluded for this screening category (table 5.4 item 10) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

k. The screening exercise for a potential LSIE has confirmed that there are no other plans or projects relevant to the assessment of effects for this site (appendix B). LSIE with other plans and projects, therefore, can be excluded.

HRA Screening Matrix F2.15: Ireland's Eye SPA

Name of European site and designation: Ireland's Eye SPA																																		
EU Code: 004117																																		
Distance to NSIP: 102.8km																																		
European site features	**Likely effects of NSIP**																																	
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*
A199 Guillemot (Uria aalge)	✓ **a**	✓ **a**	✓ **a**	✓ **b**	✓ **b**	✕ **b**	✓ **c**	✓ **c**	✓ **c**	✕ **d**	✕ **d**	✕ **d**	**e**	**e**	**e**	✕ **f**	✕ **f**	✕ **f**	✕ **g**	✕ **g**	✕ **g**	✕ **h**	✕ **h**	✕ **h**	✓ **i**	✓ **i**	✕ **i**	✓ **j**	✓ **j**	✕ **j**	✓ **k**	✓ **k**	✓ **k**

Evidence supporting conclusions:

a. Noise, vibration and visual disturbance have the potential to affect the behaviour of foraging roosting, commuting and breeding birds. This assemblage of species has the potential to be affected by the project due to the fact that they may be foraging within the ZOI, therefore LSE could not be excluded (table 5.4 item 1).

b. Intertidal and subtidal land-take has the potential to impact on areas used by foraging birds through habitat loss and effects on prey species. This screening category includes the potential impact of the disposal of dredged material on subtidal habitat at Disposal Site. This assemblage of species has the potential to be affected by the project due to the fact that they may be foraging within the ZOI, therefore LSE could not be excluded (table 5.4 item 2) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

c. Changes to marine water quality could affect prey species and the ability of birds to effectively forage for prey. This assemblage of species has the potential to be affected by the project due to the fact that they may be foraging within the ZOI, therefore LSE could not be excluded (table 5.4 item 3a).

d. The Project is expected to give rise to changes in terrestrial water quality. However, no direct effect will occur on SPA sites and, therefore, LSE can be excluded (table 5.4 item 4). Indirect effects due to consequent effects on marine water quality are considered in Note c (changes to marine water quality).

e. For this SPA, and associated qualifying features, changes in surface and groundwater hydrology associated with the Project are unlikely to result in an effect pathway; hence no LSE was concluded (table 5.4 item 5b).

f. The Project has the potential to result in the spread of INNS in the marine environment. The works have the potential to both spread INNS that are already established on the site and elsewhere in the UK and result in the import of INNS from outside the UK. In order to manage these risks, Horizon will prepare one (or more) Biosecurity Risk Assessment(s) and Method Statement(s) to cover all activities. Horizon will implement a monitoring programme for non-native species. This will include observational surveys on structures that may provide suitable substrate for non-native species. Surveys will record presence/abundance of non-native species, with reporting in agreement with NRW. Monitoring survey requirements for specific sites will be set out in the sub-CoCPs where relevant. Where new presence of INNS is discovered, Biosecurity Risk Assessments and Method Statements will be reviewed and amended where necessary. Wherever appropriate, workers will

be given an activity specific tool-box talk from an ECoW. This will include photographs of any INNS species known to be present on a site.

For the marine environment, an initial pre-construction survey will be undertaken and regular surveys will begin once construction of the breakwaters and MOLF is completed. The frequency and extent of monitoring will reduce over time, particularly once the MOLF is no longer operational. The ongoing requirement for monitoring will be regularly reviewed and agreed with NRW. Given these measures, LSE has been excluded in this context (table 5.4 item 6).

g. A Stage 1 Screening exercise has been undertaken in support of an Environmental Permit application under Radiological Substances Regulations (RSR) (WN0908-HZCON-PAC-REP-00003). The results of the assessment demonstrate that the total dose rate predicted to arise due to the proposed Wylfa Newydd Power Station (alone and in combination with other sources) is below the relevant thresholds for the protection of European Designated Sites. Given these findings, LSE can be excluded due to change in radiation dose levels (table 5.4 item 7).

h. LSE can be excluded for this SPA because the site is outside the ZOI for changes to air quality (table 5.4 item 8b).

i. The potential for LSE could not be excluded for this SPA, due to potential changes to current flows and sediment transport pathways, which could affect prey species for birds (table 5.4 item 9a) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

j. Direct effects could occur, such as entrapment within the circulating water intake. More significantly the food chain for bird species could be affected by entrainment and entrapment within the circulating water system. As a consequence, LSE could not be excluded for this screening category (table 5.4 item 10) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

k. The potential for a LSIE with other plans and projects has been identified for this European Designated Site (appendix B).

HRA Screening Matrix F2.16: East Coast Marine pSPA

Name of European site and designation: East Coast Marine pSPA																																
EU Code: UK9020320																																
Distance to NSIP: 117km																																
European site features	**Likely effects of NSIP**																															
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*
A013 Manx shearwater (Puffinus puffinus)	✓ **a**	✓ **a**	✓ **a**	✓ **b**	✓ **b**	✕ **b**	✓ **c**	✓ **c**	✓ **c**	✕ **d**	✕ **d**	✕ **d**	**e**	**e**	**e**	✕ **f**	✕ **f**	✕ **f**	✕ **g**	✕ **g**	✕ **g**	✕ **h**	✕ **h**	✕ **h**	✓ **i**	✓ **i**	✕ **i**	✓ **j**	✓ **j**	✕ **j**	✕ **k**	✕ **k**	✕ **k**

Evidence supporting conclusions:

a. Noise, vibration and visual disturbance have the potential to affect the behaviour of foraging roosting, commuting and breeding birds. This assemblage of species has the potential to be affected by the project due to the fact that they may be foraging within the ZOI, therefore LSE could not be excluded (table 5.4 item 1).

b. Intertidal and subtidal land-take has the potential to impact on areas used by foraging birds through habitat loss and effects on prey species. This screening category includes the potential impact of the disposal of dredged material on subtidal habitat at Disposal Site. This assemblage of species has the potential to be affected by the project due to the fact that they may be foraging within the ZOI, therefore LSE could not be excluded (table 5.4 item 2) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

c. Changes to marine water quality could affect prey species and the ability of birds to effectively forage for prey. This assemblage of species has the potential to be affected by the project due to the fact that they may be foraging within the ZOI, therefore LSE could not be excluded (table 5.4 item 3a).

d. The Project is expected to give rise to changes in terrestrial water quality. However, no direct effect will occur on SPA sites and, therefore, LSE can be excluded (table 5.4 item 4). Indirect effects due to consequent effects on marine water quality are considered in Note c (changes to marine water quality).

e. For this SPA, and associated qualifying features, changes in surface and groundwater hydrology associated with the Project are unlikely to result in an effect pathway; hence no LSE was concluded (table 5.4 item 5b).

f. The Project has the potential to result in the spread of INNS in the marine environment. The works have the potential to both spread INNS that are already established on the site and elsewhere in the UK and result in the import of INNS from outside the UK. In order to manage these risks, Horizon will prepare one (or more) Biosecurity Risk Assessment(s) and Method Statement(s) to cover all activities. Horizon will implement a monitoring programme for non-native species. This will include observational surveys on structures that may provide suitable substrate for non-native species. Surveys will record presence/abundance of non-native species, with reporting in agreement with NRW. Monitoring survey requirements for specific sites will be set out in the sub-CoCPs where relevant. Where new presence of INNS is discovered, Biosecurity Risk Assessments and Method Statements will be reviewed and amended where necessary. Wherever appropriate, workers will be given an activity specific tool-box talk from an ECoW. This will include photographs of any INNS species known to be present on a site.

For the marine environment, an initial pre-construction survey will be undertaken and regular surveys will begin once construction of the breakwaters and MOLF is completed. The frequency and extent of monitoring will reduce over time, particularly once the MOLF is no longer operational. The ongoing requirement for monitoring will be regularly reviewed and agreed with NRW. Given these measures, LSE has been excluded in this context (table 5.4 item 6).

g. A Stage 1 Screening exercise has been undertaken in support of an Environmental Permit application under Radiological Substances Regulations (RSR) (WN0908-HZCON-PAC-REP-00003). The results of the assessment demonstrate that the total dose rate predicted to arise due to the proposed Wylfa Newydd Power Station (alone and in combination with other sources) is below the relevant thresholds for the protection of European Designated Sites. Given these findings, LSE can be excluded due to change in radiation dose levels (table 5.4 item 7).

h. LSE can be excluded for this SPA because the site is outside the ZOI for changes to air quality (table 5.4 item 8b).

i. The potential for LSE could not be excluded for this SPA, due to potential changes to current flows and sediment transport pathways, which could affect prey species for birds (table 5.4 item 9a) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

j. Direct effects could occur, such as entrapment within the circulating water intake. More significantly the food chain for bird species could be affected by entrainment and entrapment within the circulating water system. As a consequence, LSE could not be excluded for this screening category (table 5.4 item 10) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

k. The screening exercise for a potential LSIE has confirmed that there are no other plans or projects relevant to the assessment of effects for this site (appendix B). LSIE with other plans and projects, therefore, can be excluded.

HRA Screening Matrix F2.17: Copeland Islands SPA

Name of European site and designation: Copeland Islands SPA																																		
EU Code: UK9020291																																		
Distance to NSIP: 154.4km																																		
European site features	**Likely effects of NSIP**																																	
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*
A013 Manx shearwater (Puffinus puffinus)	**✓ a**	**✓ a**	**✓ a**	**✓ b**	**✓ b**	**✕ b**	**✓ c**	**✓ c**	**✓ c**	**✕ d**	**✕ d**	**✕ d**	**e**	**e**	**e**	**✕ f**	**✕ f**	**✕ f**	**✕ g**	**✕ g**	**✕ g**	**✕ h**	**✕ h**	**✕ h**	**✓ i**	**✓ i**	**✕ i**	**✓ j**	**✓ j**	**✕ j**	**✕ k**	**✕ k**	**✕ k**

Evidence supporting conclusions:

a. Noise, vibration and visual disturbance have the potential to affect the behaviour of foraging roosting, commuting and breeding birds. This assemblage of species has the potential to be affected by the project due to the fact that they may be foraging within the ZOI, therefore LSE could not be excluded (table 5.4 item 1).

b. Intertidal and subtidal land-take has the potential to impact on areas used by foraging birds through habitat loss and effects on prey species. This screening category includes the potential impact of the disposal of dredged material on subtidal habitat at Disposal Site. This assemblage of species has the potential to be affected by the project due to the fact that they may be foraging within the ZOI, therefore LSE could not be excluded (table 5.4 item 2) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

c. Changes to marine water quality could affect prey species and the ability of birds to effectively forage for prey. This assemblage of species has the potential to be affected by the project due to the fact that they may be foraging within the ZOI, therefore LSE could not be excluded (table 5.4 item 3a).

d. The Project is expected to give rise to changes in terrestrial water quality. However, no direct effect will occur on SPA sites and, therefore, LSE can be excluded (table 5.4 item 4). Indirect effects due to consequent effects on marine water quality are considered in Note c (changes to marine water quality).

e. For this SPA, and associated qualifying features, changes in surface and groundwater hydrology associated with the Project are unlikely to result in an effect pathway; hence no LSE was concluded (table 5.4 item 5b).

f. The Project has the potential to result in the spread of INNS in the marine environment. The works have the potential to both spread INNS that are already established on the site and elsewhere in the UK and result in the import of INNS from outside the UK. In order to manage these risks, Horizon will prepare one (or more) Biosecurity Risk Assessment(s) and Method Statement(s) to cover all activities. Horizon will implement a monitoring programme for non-native species. This will include observational surveys on structures that may provide suitable substrate for non-native species. Surveys will record presence/abundance of non-native species, with reporting in agreement with NRW. Monitoring survey requirements for specific sites will be set out in the sub-CoCPs where relevant. Where new presence of INNS is discovered, Biosecurity Risk Assessments and Method Statements will be reviewed and amended where necessary. Wherever appropriate, workers will be given an activity specific tool-box talk from an ECoW. This will include photographs of any INNS species known to be present on a site.

For the marine environment, an initial pre-construction survey will be undertaken and regular surveys will begin once construction of the breakwaters and MOLF is completed. The frequency and extent of monitoring will reduce over time,

particularly once the MOLF is no longer operational. The ongoing requirement for monitoring will be regularly reviewed and agreed with NRW. Given these measures, LSE has been excluded in this context (table 5.4 item 6).

g. A Stage 1 Screening exercise has been undertaken in support of an Environmental Permit application under Radiological Substances Regulations (RSR) (WN0908-HZCON-PAC-REP-00003). The results of the assessment demonstrate that the total dose rate predicted to arise due to the proposed Wylfa Newydd Power Station (alone and in combination with other sources) is below the relevant thresholds for the protection of European Designated Sites. Given these findings, LSE can be excluded due to change in radiation dose levels (table 5.4 item 7).

h. LSE can be excluded for this SPA because the site is outside the ZOI for changes to air quality (table 5.4 item 8b).

i. The potential for LSE could not be excluded for this SPA, due to potential changes to current flows and sediment transport pathways, which could affect prey species for birds (table 5.4 item 9a) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

j. Direct effects could occur, such as entrapment within the circulating water intake. More significantly the food chain for bird species could be affected by entrainment and entrapment within the circulating water system. As a consequence, LSE could not be excluded for this screening category (table 5.4 item 10) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

k. The screening exercise for a potential LSIE has confirmed that there are no other plans or projects relevant to the assessment of effects for this site (appendix B). LSIE with other plans and projects, therefore, can be excluded.

HRA Screening Matrix F2.18: Saltee Islands SPA

Name of European site and designation: Saltee Islands SPA																																
EU Code: 004002																																
Distance to NSIP: 197.5km																																
European site features	**Likely effects of NSIP**																															
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*
A009 Fulmar (Fulmarus glacialis)	✓ a	✓ a	✓ a	✓ b	✓ b	✗ b	✓ c	✓ c	✓ c	✗ d	✗ d	✗ d	e	e	e	✗ f	✗ f	✗ f	✗ g	✗ g	✗ g	✗ h	✗ h	✗ h	✓ i	✓ i	✗ i	✓ j	✓ j	✗ j	✗ k	✗ k	✗ k
A016 Gannet (Morus bassanus)	✓ a	✓ a	✓ a	✓ b	✓ b	✗ b	✓ c	✓ c	✓ c	✗ d	✗ d	✗ d	e	e	e	✗ f	✗ f	✗ f	✗ g	✗ g	✗ g	✗ h	✗ h	✗ h	✓ i	✓ i	✗ i	✓ j	✓ j	✗ j	✗ k	✗ k	✗ k

Evidence supporting conclusions:

a. Noise, vibration and visual disturbance have the potential to affect the behaviour of foraging roosting, commuting and breeding birds. This assemblage of species has the potential to be affected by the project due to the fact that they may be foraging within the ZOI, therefore LSE could not be excluded (table 5.4 item 1).

b. Intertidal and subtidal land-take has the potential to impact on areas used by foraging birds through habitat loss and effects on prey species. This screening category includes the potential impact of the disposal of dredged material on subtidal habitat at Disposal Site. This assemblage of species has the potential to be affected by the project due to the fact that they may be foraging within the ZOI, therefore LSE could not be excluded (table 5.4 item 2) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

c. Changes to marine water quality could affect prey species and the ability of birds to effectively forage for prey. This assemblage of species has the potential to be affected by the project due to the fact that they may be foraging within the ZOI, therefore LSE could not be excluded (table 5.4 item 3a).

d. The Project is expected to give rise to changes in terrestrial water quality. However, no direct effect will occur on SPA sites and, therefore, LSE can be excluded (table 5.4 item 4). Indirect effects due to consequent effects on marine water quality are considered in Note c (changes to marine water quality).

e. For this SPA, and associated qualifying features, changes in surface and groundwater hydrology associated with the Project are unlikely to result in an effect pathway; hence no LSE was concluded (table 5.4 item 5b).

f. The Project has the potential to result in the spread of INNS in the marine environment. The works have the potential to both spread INNS that are already established on the site and elsewhere in the UK and result in the import of INNS from outside the UK. In order to manage these risks, Horizon will prepare one (or more) Biosecurity Risk Assessment(s) and Method Statement(s) to cover all activities. Horizon will implement a monitoring programme for non-native species. This will include observational surveys on structures that may provide suitable substrate for non-native species. Surveys will record presence/abundance of non-native species, with reporting in agreement with NRW. Monitoring survey requirements for specific sites will be set out in the sub-CoCPs where relevant. Where new presence of INNS is discovered, Biosecurity Risk Assessments and Method Statements will be reviewed and amended where necessary. Wherever appropriate, workers will

be given an activity specific tool-box talk from an ECoW. This will include photographs of any INNS species known to be present on a site.

For the marine environment, an initial pre-construction survey will be undertaken and regular surveys will begin once construction of the breakwaters and MOLF is completed. The frequency and extent of monitoring will reduce over time, particularly once the MOLF is no longer operational. The ongoing requirement for monitoring will be regularly reviewed and agreed with NRW. Given these measures, LSE has been excluded in this context (table 5.4 item 6).

g. A Stage 1 Screening exercise has been undertaken in support of an Environmental Permit application under Radiological Substances Regulations (RSR) (WN0908-HZCON-PAC-REP-00003). The results of the assessment demonstrate that the total dose rate predicted to arise due to the proposed Wylfa Newydd Power Station (alone and in combination with other sources) is below the relevant thresholds for the protection of European Designated Sites. Given these findings, LSE can be excluded due to change in radiation dose levels (table 5.4 item 7).

h. LSE can be excluded for this SPA because the site is outside the ZOI for changes to air quality (table 5.4 item 8b).

i. The potential for LSE could not be excluded for this SPA, due to potential changes to current flows and sediment transport pathways, which could affect prey species for birds (table 5.4 item 9a) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

j. Direct effects could occur, such as entrapment within the circulating water intake. More significantly the food chain for bird species could be affected by entrainment and entrapment within the circulating water system. As a consequence, LSE could not be excluded for this screening category (table 5.4 item 10) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

k. The screening exercise for a potential LSIE has confirmed that there are no other plans or projects relevant to the assessment of effects for this site (appendix B). LSIE with other plans and projects, therefore, can be excluded.

HRA Screening Matrix F2.19: Rathlin Island SPA

Name of European site and designation: Rathlin Island SPA																																
EU Code: UK9020011																																
Distance to NSIP: 186km																																
European site features	**Likely effects of NSIP**																															
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*
SBA Seabird assemblage of international importance (including Fulmar (Fulmarus glacialis))	✓ **a**	✓ **a**	✓ **a**	✓ **b**	✓ **b**	✕ **b**	✓ **c**	✓ **c**	✓ **c**	✕ **d**	✕ **d**	✕ **d**	**e**	**e**	**e**	✕ **f**	✕ **f**	✕ **f**	✕ **g**	✕ **g**	✕ **g**	✕ **h**	✕ **h**	✕ **h**	✓ **i**	✓ **i**	✕ **i**	✓ **j**	✓ **j**	✕ **j**	✕ **k**	✕ **k**	✕ **k**

Evidence supporting conclusions:

a. Noise, vibration and visual disturbance have the potential to affect the behaviour of foraging roosting, commuting and breeding birds. This assemblage of species has the potential to be affected by the project due to the fact that they may be foraging within the ZOI, therefore LSE could not be excluded (table 5.4 item 1).

b. Intertidal and subtidal land-take has the potential to impact on areas used by foraging birds through habitat loss and effects on prey species. This screening category includes the potential impact of the disposal of dredged material on subtidal habitat at Disposal Site. This assemblage of species has the potential to be affected by the project due to the fact that they may be foraging within the ZOI, therefore LSE could not be excluded (table 5.4 item 2) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

c. Changes to marine water quality could affect prey species and the ability of birds to effectively forage for prey. This assemblage of species has the potential to be affected by the project due to the fact that they may be foraging within the ZOI, therefore LSE could not be excluded (table 5.4 item 3a).

d. The Project is expected to give rise to changes in terrestrial water quality. However, no direct effect will occur on SPA sites and, therefore, LSE can be excluded (table 5.4 item 4). Indirect effects due to consequent effects on marine water quality are considered in Note c (changes to marine water quality).

e. For this SPA, and associated qualifying features, changes in surface and groundwater hydrology associated with the Project are unlikely to result in an effect pathway; hence no LSE was concluded (table 5.4 item 5b).

f. The Project has the potential to result in the spread of INNS in the marine environment. The works have the potential to both spread INNS that are already established on the site and elsewhere in the UK and result in the import of INNS from outside the UK. In order to manage these risks, Horizon will prepare one (or more) Biosecurity Risk Assessment(s) and Method Statement(s) to cover all activities. Horizon will implement a monitoring programme for non-native species. This will include observational surveys on structures that may provide suitable substrate for non-native species. Surveys will record presence/abundance of non-native species, with reporting in agreement with NRW. Monitoring survey requirements for specific sites will be set out in the sub-CoCPs where relevant. Where new presence of INNS is discovered, Biosecurity Risk Assessments and Method Statements will be reviewed and amended where necessary. Wherever appropriate, workers will

be given an activity specific tool-box talk from an ECoW. This will include photographs of any INNS species known to be present on a site.

For the marine environment, an initial pre-construction survey will be undertaken and regular surveys will begin once construction of the breakwaters and MOLF is completed. The frequency and extent of monitoring will reduce over time, particularly once the MOLF is no longer operational. The ongoing requirement for monitoring will be regularly reviewed and agreed with NRW. Given these measures, LSE has been excluded in this context (table 5.4 item 6).

g. A Stage 1 Screening exercise has been undertaken in support of an Environmental Permit application under Radiological Substances Regulations (RSR) (WN0908-HZCON-PAC-REP-00003). The results of the assessment demonstrate that the total dose rate predicted to arise due to the proposed Wylfa Newydd Power Station (alone and in combination with other sources) is below the relevant thresholds for the protection of European Designated Sites. Given these findings, LSE can be excluded due to change in radiation dose levels (table 5.4 item 7).

h. LSE can be excluded for this SPA because the site is outside the ZOI for changes to air quality (table 5.4 item 8b).

i. The potential for LSE could not be excluded for this SPA, due to potential changes to current flows and sediment transport pathways, which could affect prey species for birds (table 5.4 item 9a) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

j. Direct effects could occur, such as entrapment within the circulating water intake. More significantly the food chain for bird species could be affected by entrainment and entrapment within the circulating water system. As a consequence, LSE could not be excluded for this screening category (table 5.4 item 10) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

k. The screening exercise for a potential LSIE has confirmed that there are no other plans or projects relevant to the assessment of effects for this site (appendix B). LSIE with other plans and projects, therefore, can be excluded.

HRA Screening Matrix F2.20: Horn Head to Fanad Head SPA

Name of European site and designation: Horn Head to Fanad Head SPA																																		
EU Code: 004194																																		
Distance to NSIP: 279.7km																																		
European site features	**Likely effects of NSIP**																																	
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*
A009 Fulmar (Fulmarus glacialis)	✓ **a**	✓ **a**	✓ **a**	✓ **b**	✓ **b**	✕ **b**	✓ **c**	✓ **c**	✓ **c**	✕ **d**	✕ **d**	✕ **d**	**e**	**e**	**e**	✕ **f**	✕ **f**	✕ **f**	✕ **g**	✕ **g**	✕ **g**	✕ **h**	✕ **h**	✕ **h**	✓ **i**	✓ **i**	✕ **i**	✓ **j**	✓ **j**	✕ **j**	✕ **k**	✕ **k**	✕ **k**

Evidence supporting conclusions:

a. Noise, vibration and visual disturbance have the potential to affect the behaviour of foraging roosting, commuting and breeding birds. This assemblage of species has the potential to be affected by the project due to the fact that they may be foraging within the ZOI, therefore LSE could not be excluded (table 5.4 item 1).

b. Intertidal and subtidal land-take has the potential to impact on areas used by foraging birds through habitat loss and effects on prey species. This screening category includes the potential impact of the disposal of dredged material on subtidal habitat at Disposal Site. This assemblage of species has the potential to be affected by the project due to the fact that they may be foraging within the ZOI, therefore LSE could not be excluded (table 5.4 item 2) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

c. Changes to marine water quality could affect prey species and the ability of birds to effectively forage for prey. This assemblage of species has the potential to be affected by the project due to the fact that they may be foraging within the ZOI, therefore LSE could not be excluded (table 5.4 item 3a).

d. The Project is expected to give rise to changes in terrestrial water quality. However, no direct effect will occur on SPA sites and, therefore, LSE can be excluded (table 5.4 item 4). Indirect effects due to consequent effects on marine water quality are considered in Note c (changes to marine water quality).

e. For this SPA, and associated qualifying features, changes in surface and groundwater hydrology associated with the Project are unlikely to result in an effect pathway; hence no LSE was concluded (table 5.4 item 5b).

f. The Project has the potential to result in the spread of INNS in the marine environment. The works have the potential to both spread INNS that are already established on the site and elsewhere in the UK and result in the import of INNS from outside the UK. In order to manage these risks, Horizon will prepare one (or more) Biosecurity Risk Assessment(s) and Method Statement(s) to cover all activities. Horizon will implement a monitoring programme for non-native species. This will include observational surveys on structures that may provide suitable substrate for non-native species. Surveys will record presence/abundance of non-native species, with reporting in agreement with NRW. Monitoring survey requirements for specific sites will be set out in the sub-CoCPs where relevant. Where new presence of INNS is discovered, Biosecurity Risk Assessments and Method Statements will be reviewed and amended where necessary. Wherever appropriate, workers will be given an activity specific tool-box talk from an ECoW. This will include photographs of any INNS species known to be present on a site.

For the marine environment, an initial pre-construction survey will be undertaken and regular surveys will begin once construction of the breakwaters and MOLF is completed. The frequency and extent of monitoring will reduce over time, particularly once the MOLF is no longer operational. The ongoing requirement for monitoring will be regularly reviewed and agreed with NRW. Given these measures, LSE has been excluded in this context (table 5.4 item 6).

g. A Stage 1 Screening exercise has been undertaken in support of an Environmental Permit application under Radiological Substances Regulations (RSR) (WN0908-HZCON-PAC-REP-00003). The results of the assessment demonstrate that the total dose rate predicted to arise due to the proposed Wylfa Newydd Power Station (alone and in combination with other sources) is below the relevant thresholds for the protection of European Designated Sites. Given these findings, LSE can be excluded due to change in radiation dose levels (table 5.4 item 7).

h. LSE can be excluded for this SPA because the site is outside the ZOI for changes to air quality (table 5.4 item 8b).

i. The potential for LSE could not be excluded for this SPA, due to potential changes to current flows and sediment transport pathways, which could affect prey species for birds (table 5.4 item 9a) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

j. Direct effects could occur, such as entrapment within the circulating water intake. More significantly the food chain for bird species could be affected by entrainment and entrapment within the circulating water system. As a consequence, LSE could not be excluded for this screening category (table 5.4 item 10) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

k. The screening exercise for a potential LSIE has confirmed that there are no other plans or projects relevant to the assessment of effects for this site (appendix B). LSIE with other plans and projects, therefore, can be excluded for this European Designated Site.

HRA Screening Matrix F2.21: West Donegal Coast SPA

Name of European site and designation: West Donegal Coast SPA																																
EU Code: 004150																																
Distance to NSIP: 297.7km																																
European site features	**Likely effects of NSIP**																															
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*
A009 Fulmar (Fulmarus glacialis)	✓ **a**	✓ **a**	✓ **a**	✓ **b**	✓ **b**	✕ **b**	✓ **c**	✓ **c**	✓ **c**	✕ **d**	✕ **d**	✕ **d**	**e**	**e**	**e**	✕ **f**	✕ **f**	✕ **f**	✕ **g**	✕ **g**	✕ **g**	✕ **h**	✕ **h**	✕ **h**	✓ **i**	✓ **i**	✕ **i**	✓ **j**	✓ **j**	✕ **j**	✕ **k**	✕ **k**	✕ **k**

Evidence supporting conclusions:

a. Noise, vibration and visual disturbance have the potential to affect the behaviour of foraging roosting, commuting and breeding birds. This assemblage of species has the potential to be affected by the project due to the fact that they may be foraging within the ZOI, therefore LSE could not be excluded (table 5.4 item 1).

b. Intertidal and subtidal land-take has the potential to impact on areas used by foraging birds through habitat loss and effects on prey species. This screening category includes the potential impact of the disposal of dredged material on subtidal habitat at Disposal Site. This assemblage of species has the potential to be affected by the project due to the fact that they may be foraging within the ZOI, therefore LSE could not be excluded (table 5.4 item 2) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

c. Changes to marine water quality could affect prey species and the ability of birds to effectively forage for prey. This assemblage of species has the potential to be affected by the project due to the fact that they may be foraging within the ZOI, therefore LSE could not be excluded (table 5.4 item 3a).

d. The Project is expected to give rise to changes in terrestrial water quality. However, no direct effect will occur on SPA sites and, therefore, LSE can be excluded (table 5.4 item 4). Indirect effects due to consequent effects on marine water quality are considered in Note c (changes to marine water quality).

e. For this SPA, and associated qualifying features, changes in surface and groundwater hydrology associated with the Project are unlikely to result in an effect pathway; hence no LSE was concluded (table 5.4 item 5b).

f. The Project has the potential to result in the spread of INNS in the marine environment. The works have the potential to both spread INNS that are already established on the site and elsewhere in the UK and result in the import of INNS from outside the UK. In order to manage these risks, Horizon will prepare one (or more) Biosecurity Risk Assessment(s) and Method Statement(s) to cover all activities. Horizon will implement a monitoring programme for non-native species. This will include observational surveys on structures that may provide suitable substrate for non-native species. Surveys will record presence/abundance of non-native species, with reporting in agreement with NRW. Monitoring survey requirements for specific sites will be set out in the sub-CoCPs where relevant. Where new presence of INNS is discovered, Biosecurity Risk Assessments and Method Statements will be reviewed and amended where necessary. Wherever appropriate, workers will be given an activity specific tool-box talk from an ECoW. This will include photographs of any INNS species known to be present on a site.

For the marine environment, an initial pre-construction survey will be undertaken and regular surveys will begin once construction of the breakwaters and MOLF is completed. The frequency and extent of monitoring will reduce over time, particularly once the MOLF is no longer operational. The ongoing requirement for monitoring will be regularly reviewed and agreed with NRW. Given these measures, LSE has been excluded in this context (table 5.4 item 6).

g. A Stage 1 Screening exercise has been undertaken in support of an Environmental Permit application under Radiological Substances Regulations (RSR) (WN0908-HZCON-PAC-REP-00003). The results of the assessment demonstrate that the total dose rate predicted to arise due to the proposed Wylfa Newydd Power Station (alone and in combination with other sources) is below the relevant thresholds for the protection of European Designated Sites. Given these findings, LSE can be excluded due to change in radiation dose levels (table 5.4 item 7).

h. LSE can be excluded for this SPA because the site is outside the ZOI for changes to air quality (table 5.4 item 8b).

i. The potential for LSE could not be excluded for this SPA, due to potential changes to current flows and sediment transport pathways, which could affect prey species for birds (table 5.4 item 9a) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

j. Direct effects could occur, such as entrapment within the circulating water intake. More significantly the food chain for bird species could be affected by entrainment and entrapment within the circulating water system. As a consequence, LSE could not be excluded for this screening category (table 5.4 item 10) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

k. The screening exercise for a potential LSIE has confirmed that there are no other plans or projects relevant to the assessment of effects for this site (appendix B). LSIE with other plans and projects, therefore, can be excluded for this European Designated Site.

HRA Screening Matrix F2.22: Tory Island SPA

Name of European site and designation: Tory Island SPA																																
EU Code: 004073																																
Distance to NSIP: 314.5km																																
European site features	**Likely effects of NSIP**																															
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*
A009 Fulmar (Fulmarus glacialis)	✓ **a**	✓ **a**	✓ **a**	✓ **b**	✓ **b**	✕ **b**	✓ **c**	✓ **c**	✓ **c**	✕ **d**	✕ **d**	✕ **d**	**e**	**e**	**e**	✕ **f**	✕ **f**	✕ **f**	✕ **g**	✕ **g**	✕ **g**	✕ **h**	✕ **h**	✕ **h**	✓ **i**	✓ **i**	✕ **i**	✓ **j**	✓ **j**	✕ **j**	✕ **k**	✕ **k**	✕ **k**

Evidence supporting conclusions:

a. Noise, vibration and visual disturbance have the potential to affect the behaviour of foraging roosting, commuting and breeding birds. This assemblage of species has the potential to be affected by the project due to the fact that they may be foraging within the ZOI, therefore LSE could not be excluded (table 5.4 item 1).

b. Intertidal and subtidal land-take has the potential to impact on areas used by foraging birds through habitat loss and effects on prey species. This screening category includes the potential impact of the disposal of dredged material on subtidal habitat at Disposal Site. This assemblage of species has the potential to be affected by the project due to the fact that they may be foraging within the ZOI, therefore LSE could not be excluded (table 5.4 item 2) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

c. Changes to marine water quality could affect prey species and the ability of birds to effectively forage for prey. This assemblage of species has the potential to be affected by the project due to the fact that they may be foraging within the ZOI, therefore LSE could not be excluded (table 5.4 item 3a).

d. The Project is expected to give rise to changes in terrestrial water quality. However, no direct effect will occur on SPA sites and, therefore, LSE can be excluded (table 5.4 item 4). Indirect effects due to consequent effects on marine water quality are considered in Note c (changes to marine water quality).

e. For this SPA, and associated qualifying features, changes in surface and groundwater hydrology associated with the Project are unlikely to result in an effect pathway; hence no LSE was concluded (table 5.4 item 5b).

f. The Project has the potential to result in the spread of INNS in the marine environment. The works have the potential to both spread INNS that are already established on the site and elsewhere in the UK and result in the import of INNS from outside the UK. In order to manage these risks, Horizon will prepare one (or more) Biosecurity Risk Assessment(s) and Method Statement(s) to cover all activities. Horizon will implement a monitoring programme for non-native species. This will include observational surveys on structures that may provide suitable substrate for non-native species. Surveys will record presence/abundance of non-native species, with reporting in agreement with NRW. Monitoring survey requirements for specific sites will be set out in the sub-CoCPs where relevant. Where new presence of INNS is discovered, Biosecurity Risk Assessments and Method Statements will be reviewed and amended where necessary. Wherever appropriate, workers will

be given an activity specific tool-box talk from an ECoW. This will include photographs of any INNS species known to be present on a site.

For the marine environment, an initial pre-construction survey will be undertaken and regular surveys will begin once construction of the breakwaters and MOLF is completed. The frequency and extent of monitoring will reduce over time, particularly once the MOLF is no longer operational. The ongoing requirement for monitoring will be regularly reviewed and agreed with NRW. Given these measures, LSE has been excluded in this context (table 5.4 item 6).

g. A Stage 1 Screening exercise has been undertaken in support of an Environmental Permit application under Radiological Substances Regulations (RSR) (WN0908-HZCON-PAC-REP-00003). The results of the assessment demonstrate that the total dose rate predicted to arise due to the proposed Wylfa Newydd Power Station (alone and in combination with other sources) is below the relevant thresholds for the protection of European Designated Sites. Given these findings, LSE can be excluded due to change in radiation dose levels (table 5.4 item 7).

h. LSE can be excluded for this SPA because the site is outside the ZOI for changes to air quality (table 5.4 item 8b).

i. The potential for LSE could not be excluded for this SPA, due to potential changes to current flows and sediment transport pathways, which could affect prey species for birds (table 5.4 item 9a) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

j. Direct effects could occur, such as entrapment within the circulating water intake. More significantly the food chain for bird species could be affected by entrainment and entrapment within the circulating water system. As a consequence, LSE could not be excluded for this screening category (table 5.4 item 10) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

k. The screening exercise for a potential LSIE has confirmed that there are no other plans or projects relevant to the assessment of effects for this site (appendix B). LSIE with other plans and projects, therefore, can be excluded for this European Designated Site.

HRA Screening Matrix F2.23: Ailsa Craig SPA

Name of European site and designation: Ailsa Craig SPA																																
EU Code: UK9003091																																
Distance to NSIP: 205.2km																																
European site features	**Likely effects of NSIP**																															
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*
A016 Gannet (Morus bassanus)	✓ **a**	✓ **a**	✓ **a**	✓ **b**	✓ **b**	✕ **b**	✓ **c**	✓ **c**	✓ **c**	✕ **d**	✕ **d**	✕ **d**	**e**	**e**	**e**	✕ **f**	✕ **f**	✕ **f**	✕ **g**	✕ **g**	✕ **g**	✕ **h**	✕ **h**	✕ **h**	✓ **i**	✓ **i**	✕ **i**	✓ **j**	✓ **j**	✕ **j**	✓ **k**	✓ **k**	✓ **k**

Evidence supporting conclusions:

a. Noise, vibration and visual disturbance have the potential to affect the behaviour of foraging roosting, commuting and breeding birds. This assemblage of species has the potential to be affected by the project due to the fact that they may be foraging within the ZOI, therefore LSE could not be excluded (table 5.4 item 1).

b. Intertidal and subtidal land-take has the potential to impact on areas used by foraging birds through habitat loss and effects on prey species. This screening category includes the potential impact of the disposal of dredged material on subtidal habitat at Disposal Site. This assemblage of species has the potential to be affected by the project due to the fact that they may be foraging within the ZOI, therefore LSE could not be excluded (table 5.4 item 2) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

c. Changes to marine water quality could affect prey species and the ability of birds to effectively forage for prey. This assemblage of species has the potential to be affected by the project due to the fact that they may be foraging within the ZOI, therefore LSE could not be excluded (table 5.4 item 3a).

d. The Project is expected to give rise to changes in terrestrial water quality. However, no direct effect will occur on SPA sites and, therefore, LSE can be excluded (table 5.4 item 4). Indirect effects due to consequent effects on marine water quality are considered in Note c (changes to marine water quality).

e. For this SPA, and associated qualifying features, changes in surface and groundwater hydrology associated with the Project are unlikely to result in an effect pathway; hence no LSE was concluded (table 5.4 item 5b).

f. The Project has the potential to result in the spread of INNS in the marine environment. The works have the potential to both spread INNS that are already established on the site and elsewhere in the UK and result in the import of INNS from outside the UK. In order to manage these risks, Horizon will prepare one (or more) Biosecurity Risk Assessment(s) and Method Statement(s) to cover all activities. Horizon will implement a monitoring programme for non-native species. This will include observational surveys on structures that may provide suitable substrate for non-native species. Surveys will record presence/abundance of non-native species, with reporting in agreement with NRW. Monitoring survey requirements for specific sites will be set out in the sub-CoCPs where relevant. Where new presence of INNS is discovered, Biosecurity Risk Assessments and Method Statements will be reviewed and amended where necessary. Wherever appropriate, workers will

be given an activity specific tool-box talk from an ECoW. This will include photographs of any INNS species known to be present on a site.

For the marine environment, an initial pre-construction survey will be undertaken and regular surveys will begin once construction of the breakwaters and MOLF is completed. The frequency and extent of monitoring will reduce over time, particularly once the MOLF is no longer operational. The ongoing requirement for monitoring will be regularly reviewed and agreed with NRW. Given these measures, LSE has been excluded in this context (table 5.4 item 6).

g. A Stage 1 Screening exercise has been undertaken in support of an Environmental Permit application under Radiological Substances Regulations (RSR) (WN0908-HZCON-PAC-REP-00003). The results of the assessment demonstrate that the total dose rate predicted to arise due to the proposed Wylfa Newydd Power Station (alone and in combination with other sources) is below the relevant thresholds for the protection of European Designated Sites. Given these findings, LSE can be excluded due to change in radiation dose levels (table 5.4 item 7).

h. LSE can be excluded for this SPA because the site is outside the ZOI for changes to air quality (table 5.4 item 8b).

i. The potential for LSE could not be excluded for this SPA, due to potential changes to current flows and sediment transport pathways, which could affect prey species for birds (table 5.4 item 9a) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

j. Direct effects could occur, such as entrapment within the circulating water intake. More significantly the food chain for bird species could be affected by entrainment and entrapment within the circulating water system. As a consequence, LSE could not be excluded for this screening category (table 5.4 item 10) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

k. The potential for a LSIE with other plans and projects has been identified for this European Designated Site (appendix B).

Planning Inspectorate

Advice Note 10

Habitats Regulations Assessment

Appendix F.3: Screening Matrices for Ramsar sites

Potential Effects

Potential effects upon the European Designated Sites[8] which are considered within the submitted Shadow HRA report for Wylfa Newydd Power Station are provided in the table below.

[8] As defined in Advice Note 10.

Effects considered within the screening matrices (refer to chapter 5 for further detail)

Designation	Effects described in submission information	Presented in screening matrices as
All qualifying sites (and features) screened in to the assessment	• Potential disturbance effects of noise and vibration during activities. • Potential effects from changes in visual stimuli (including lighting) associated with the proposed works.	• Changes in visual and acoustic stimuli
	• Potential effects from reduction in physical footprint of the activity concerned as a result of permanent or temporary works.	• Land take, including seabed or intertidal land
	• Potential effects due to changes in marine water quality from substances released either directly or indirectly into the marine environment.	• Changes in marine water quality
	• Potential effects from changes to the chemical composition of surface water and groundwater, including sedimentation, changes to water turbidity and the re-suspension of sediment-bound contaminants.	• Changes in terrestrial water quality
	• Potential effects from changes to hydrology and hydrogeology on land, including changes to the flow and drainage of water, increased risks associated with flooding and sediment dynamics, and effects of and on the local water supply.	• Changes in surface and groundwater hydrology
	• Potential effects on terrestrial and marine ecology due to increased competition from Invasive Non-Native Species (INNS).	• Introduction of Invasive Non-Native Species
	• Potential effects from radiation emanating	• Change in radiation dose levels

	from the Power Station during operation and includes radiological contamination of the air, water or terrestrial environment.	
	• Potential effects from non-radiological changes in air quality associated with the construction and operation of the Project (e.g. dust, construction plant emissions).	• Change in air quality
	• Potential effects due to changes to the physical coastline as a result of marine and coastal works. This includes the implications for habitat functionality of local coastal erosion and accretion, and the release and dispersal of suspended sediments.	• Alteration of coastal processes and hydro-dynamics
	• Potential effects from direct interactions (collisions) with infrastructure or machinery associated with the Project. This includes indirect effects through entrainment / entrapment of prey species for marine mammals and birds.	• Physical interaction between species and Project infra-structure

STAGE 1: SCREENING MATRICES FOR RAMSAR SITES

The European Designated Sites included within the screening assessment are:

- Corsydd Môn a Llyn/Anglesey and Llyn Fens Ramsar - Wales (UK14005)
- Aber Afen Dyfrdwy/Dee Estuary Ramsar site – Wales/England (UK11082)
- Mersey Narrows and North Wirral Foreshore Ramsar site (UK11042)
- Ribble and Alt Estuaries Ramsar – England (UK11057)
- Morecambe Bay Ramsar – England (UK11045)

The complete list of qualifying interest features for each European Designated Site is presented in appendix D (Ramsar sites with habitat and non-bird qualifying features) and appendix E (Ramsar sites with bird qualifying features). This includes the qualifying features of Ramsar sites considered in the Stage 1 Screening exercise, with those features for which the potential for LSE has been determined (and therefore requiring Stage 2 assessment) identified in bold text. Only the qualifying features identified in bold text are carried into the screening matrices presented in this appendix (appendix F).

Evidence for, or against, likely significant effects on the European Designated Site(s) and their qualifying feature(s) is detailed within the footnotes to the screening matrices below. The screening matrices follow the requirements and structure set out in appendix 1 to Advice Note 10.

Matrix Key:

✓ = Likely significant effect **cannot** be excluded

✕ = Likely significant effect **can** be excluded

C = construction

O = operation

D = decommissioning

Where effects are not applicable to a particular feature they are greyed out and an explanation is provided as to why the effect is not relevant.

HRA Screening Matrix F3.1: Corsydd Môn a Llyn/Anglesey and Llyn Fens Ramsar

Name of European site and designation: Corsydd Môn a Llyn/Anglesey and Llyn Fens Ramsar																																		
EU Code: UK14005																																		
Distance to NSIP: 14km																																		
European site features	**Likely effects of NSIP**																																	
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*
Suite of base-rich, calcareous fens which is a rare habitat type within the United Kingdom's biogeographical zone	**a**	**a**	**× a**	**× c**	**× c**	**× c**	**d**	**d**	**d**	**✓ e**	**× e**	**× e**	**✓ f**	**✓ f**	**× f**	**× g**	**× g**	**× g**	**× h**	**× h**	**× h**	**× i**	**✓ i**	**× i**	**j**	**j**	**j**	**k**	**k**	**k**	**✓ l**	**✓ l**	**× l**
Diverse flora and fauna with	**× b**	**× b**	**× a**	**× c**	**× c**	**× c**	**d**	**d**	**d**	**✓ e**	**× e**	**× e**	**✓ f**	**✓ f**	**× f**	**× g**	**× g**	**× g**	**× h**	**× h**	**× h**	**× i**	**✓ i**	**× i**	**j**	**j**	**j**	**k**	**k**	**k**	**✓ l**	**✓ l**	**× l**

associated rare species and is of special value for maintaining the genetic and ecological diversity of the region																															

Evidence supporting conclusions:

a. The qualifying habitat features of the Ramsar site are not sensitive to changes in visual and acoustic stimuli and, therefore, no impact pathway exists (table 5.1 item 1).

b. The qualifying flora and fauna of the Ramsar site theoretically could be affected by changes to visual and acoustic stimuli. The Ramsar site is, however, 14km distant from the Wylfa Newydd Development Area and, on this basis, LSE can be excluded (table 5.1 item 1).

c. There would be no land-take in either the terrestrial or marine environment that would affect a qualifying habitat feature of a Ramsar site and, therefore, LSE can be excluded (table 5.1 item 2).

d. There is no potential for changes to marine water quality to affect Ramsar qualifying terrestrial and freshwater habitats due to the lack of an impact pathway (table 5.1 item 3b).

e. The Project is expected to give rise to changes in terrestrial water quality. This European Designated Site has the potential to be affected during the construction works for the creation and enhancement of fen habitat at Cae Canol-dydd and Cors Gwawr. LSE could not, therefore, be excluded (table 5.1 item 4b).

f. This European Designated Site has the potential to be affected during the construction works for, and in the post-construction phase of, the creation and enhancement of fen habitat at Cae Canol-dydd and Cors Gwawr. LSE could not, therefore, be excluded (table 5.1 item 5b).

g. The Project has the potential to result in the spread of INNS in the terrestrial environment. The works have the potential to both spread INNS that are already established on the site and elsewhere in the UK and result in the import of INNS from outside the UK. In order to manage these risks, Horizon will prepare one (or more) Biosecurity Risk Assessment(s) and Method Statement(s) to cover all activities. Horizon will implement a monitoring programme for non-native species. This will include observational surveys on structures that may provide suitable substrate for non-native species. Surveys will record presence/abundance of non-native species, with reporting in agreement with NRW. Monitoring survey requirements for specific sites will be set out in the sub-CoCPs where relevant. Where new presence of INNS is discovered, Biosecurity Risk Assessments and Method Statements will be reviewed and amended where necessary. Wherever appropriate, workers will be given an activity specific tool-box talk from an ECoW. This will include photographs of any INNS species known to be present on a site (table 5.1 item 6).

h. A Stage 1 Screening exercise has been undertaken in support of an Environmental Permit application under Radiological Substances Regulations (RSR) (WN0908-HZCON-PAC-REP-00003). The results of the assessment demonstrate that the total dose rate predicted to arise due to the proposed Wylfa Newydd Power Station (alone and in combination with other sources) is below the relevant thresholds for the protection of European Designated Sites. Given these findings, LSE can be excluded due to change in radiation dose levels (table 5.1 item 7).

i. The screening assessment concludes that LSE can be excluded for emissions during the construction phase (table 5.1 item 8b). For the operating Power Station, operational combustion activity (MEEG operation and LOOP/LOCA scenario) could affect the Ramsar site (table 5.1 item 8a) and, therefore, LSE has been determined. However, LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

j. This Ramsar site does not contain any marine or coastal habitats and, therefore, no impact pathway exists (table 5.1 item 9b).

k. The qualifying habitat features of the Ramsar site are not sensitive to physical interaction between species and Project infrastructure and, therefore, no impact pathway exists (table 5.1 item 10).

l. The potential for a LSIE with other plans and projects has been identified for this European Designated Site (appendix B), albeit not for the decommissioning phase because LSE has been excluded for this European Designated Site for the Project alone.

HRA Screening Matrix F3.2: Aber Afen Dyfrdwy/Dee Estuary Ramsar

Name of European site and designation: Aber Afen Dyfrdwy/Dee Estuary Ramsar																																		
EU Code: UK11082																																		
Distance to NSIP: 60.2km																																		
European site features	**Likely effects of NSIP**																																	
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*
A191 Sandwich tern (Sterna sandvicensis)	✓ **a**	✓ **a**	✓ **a**	✓ **b**	✓ **b**	✕ **b**	✓ **c**	✓ **c**	✓ **c**	✕ **d**	✕ **d**	✕ **d**	**e**	**e**	**e**	✕ **f**	✕ **f**	✕ **f**	✕ **g**	✕ **g**	✕ **g**	✕ **h**	✕ **h**	✕ **h**	✓ **i**	✓ **i**	✕ **i**	✓ **j**	✓ **j**	✕ **j**	✓ **k**	✓ **k**	✓ **k**

Evidence supporting conclusions:

a. Noise, vibration and visual disturbance have the potential to affect the behaviour of foraging roosting, commuting and breeding birds. This species has the potential to be affected by the project due to the fact that they may be foraging within the ZOI, therefore LSE could not be excluded (table 5.4 item 1).

b. Intertidal and subtidal land-take has the potential to impact on areas used by foraging birds through habitat loss and effects on prey species. This screening category includes the potential impact of the disposal of dredged material on subtidal habitat at Disposal Site. This species has the potential to be affected by the project due to the fact that they may be foraging within the ZOI, therefore LSE could not be excluded (table 5.4 item 2) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

c. Changes to marine water quality could affect prey species and the ability of birds to effectively forage for prey. This species has the potential to be affected by the project due to the fact that they may be foraging within the ZOI, therefore LSE could not be excluded (table 5.4 item 3a).

d. The Project is expected to give rise to changes in terrestrial water quality. However, no direct effect will occur on SPASPAs (table 5.4 item 4). Indirect effects due to consequent effects on marine water quality are considered in Note c (changes to marine water quality).

e. For this SPA, and associated qualifying features, changes in surface and groundwater hydrology associated with the Project are unlikely to result in an effect pathway; hence LSE can be excluded (table 5.4 item 5b).

f. The Project has the potential to result in the spread of INNS in the marine environment. The works have the potential to both spread INNS that are already established on the site and elsewhere in the UK and result in the import of INNS from outside the UK. In order to manage these risks, Horizon will prepare one (or more) Biosecurity Risk Assessment(s) and Method Statement(s) to cover all activities. Horizon will implement a monitoring programme for non-native species. This will include observational surveys on structures that may provide suitable substrate for non-native species. Surveys will record presence/abundance of non-native species, with reporting in agreement with NRW. Monitoring survey requirements for specific sites will be set out in the sub-CoCPs where relevant. Where new presence of INNS is discovered, Biosecurity Risk Assessments and Method Statements will be reviewed and amended where necessary. Wherever appropriate, workers will

be given an activity specific tool-box talk from an ECoW. This will include photographs of any INNS species known to be present on a site.

For the marine environment, an initial pre-construction survey will be undertaken and regular surveys will begin once construction of the breakwaters and MOLF is completed. The frequency and extent of monitoring will reduce over time, particularly once the MOLF is no longer operational. The ongoing requirement for monitoring will be regularly reviewed and agreed with NRW. Given these measures, LSE has been excluded in this context (table 5.4 item 6).

g. A Stage 1 Screening exercise has been undertaken in support of an Environmental Permit application under Radiological Substances Regulations (RSR) (WN0908-HZCON-PAC-REP-00003). The results of the assessment demonstrate that the total dose rate predicted to arise due to the proposed Wylfa Newydd Power Station (alone and in combination with other sources) is below the relevant thresholds for the protection of European Designated Sites. Given these findings, LSE can be excluded due to change in radiation dose levels (table 5.4 item 7).

h. LSE can be excluded for this SPA because the site is outside the ZOI for changes to air quality (table 5.4 item 8b).

i. The potential for LSE could not be excluded for this SPA, due to potential changes to current flows and sediment transport pathways, which could affect prey species for birds (table 5.4 item 9a) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

j. Direct effects could occur, such as entrapment within the circulating water intake. More significantly the food chain for bird species could be affected by entrainment and entrapment within the circulating water system. As a consequence, LSE could not be excluded for this screening category (table 5.4 item 10) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

k. The potential for a LSIE with other plans and projects has been identified for this European Designated Site (appendix B).

HRA Screening Matrix F3.3: Mersey Narrows and North Wirral Foreshore Ramsar

Name of European site and designation: Mersey Narrows and North Wirral Foreshore Ramsar																																	
EU Code: UK11042																																	
Distance to NSIP: 82km																																	
European site features	**Likely effects of NSIP**																																
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*
A193 Common tern (Sterna hirundo)	✓ **a**	✓ **a**	✓ **a**	✓ **b**	✓ **b**	✕ **b**	✓ **c**	✓ **c**	✓ **c**	✕ **d**	✕ **d**	✕ **d**	**e**	**e**	**e**	✕ **f**	✕ **f**	✕ **f**	✕ **g**	✕ **g**	✕ **g**	✕ **h**	✕ **h**	✕ **h**	✓ **i**	✓ **i**	✕ **i**	✓ **j**	✓ **j**	✕ **j**	✓ **k**	✓ **k**	✓ **k**

Evidence supporting conclusions:

a. Noise, vibration and visual disturbance have the potential to affect the behaviour of foraging roosting, commuting and breeding birds. This species has the potential to be affected by the project due to the fact that they may be foraging within the ZOI, therefore LSE could not be excluded (table 5.4 item 1) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

b. Intertidal and subtidal land-take has the potential to impact on areas used by foraging birds through habitat loss and effects on prey species. This screening category includes the potential impact of the disposal of dredged material on subtidal habitat at Disposal Site. This species has the potential to be affected by the project due to the fact that they may be foraging within the ZOI, therefore LSE could not be excluded (table 5.4 item 2).

c. Changes to marine water quality could affect prey species and the ability of birds to effectively forage for prey. This species has the potential to be affected by the project due to the fact that they may be foraging within the ZOI, therefore LSE could not be excluded (table 5.4 item 3a).

d. The Project is expected to give rise to changes in terrestrial water quality. However, no direct effect will occur on SPA sites and, therefore, LSE can be excluded (table 5.4 item 4). Indirect effects due to consequent effects on marine water quality are considered in Note c (changes to marine water quality).

e. For this SPA, and associated qualifying features, changes in surface and groundwater hydrology associated with the Project are unlikely to result in an effect pathway; hence LSE can be excluded (table 5.4 item 5b).

f. The Project has the potential to result in the spread of INNS in the marine environment. The works have the potential to both spread INNS that are already established on the site and elsewhere in the UK and result in the import of INNS from outside the UK. In order to manage these risks, Horizon will prepare one (or more) Biosecurity Risk Assessment(s) and Method Statement(s) to cover all activities. Horizon will implement a monitoring programme for non-native species. This will include observational surveys on structures that may provide suitable substrate for non-native species. Surveys will record presence/abundance of non-native species, with reporting in agreement with NRW. Monitoring survey requirements for specific sites will be set out in the sub-CoCPs where relevant. Where new presence of INNS is discovered, Biosecurity Risk Assessments and Method Statements will be reviewed and amended where necessary. Wherever appropriate, workers will

be given an activity specific tool-box talk from an ECoW. This will include photographs of any INNS species known to be present on a site.

For the marine environment, an initial pre-construction survey will be undertaken and regular surveys will begin once construction of the breakwaters and MOLF is completed. The frequency and extent of monitoring will reduce over time, particularly once the MOLF is no longer operational. The ongoing requirement for monitoring will be regularly reviewed and agreed with NRW. Given these measures, LSE has been excluded in this context (table 5.4 item 6).

g. A Stage 1 Screening exercise has been undertaken in support of an Environmental Permit application under Radiological Substances Regulations (RSR) (WN0908-HZCON-PAC-REP-00003). The results of the assessment demonstrate that the total dose rate predicted to arise due to the proposed Wylfa Newydd Power Station (alone and in combination with other sources) is below the relevant thresholds for the protection of European Designated Sites. Given these findings, LSE can be excluded due to change in radiation dose levels (table 5.4 item 7).

h. LSE can be excluded for this SPA because the site is outside the ZOI for changes to air quality (table 5.4 item 8b).

i. The potential for LSE could not be excluded for this SPA, due to potential changes to current flows and sediment transport pathways, which could affect prey species for birds (table 5.4 item 9a) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

j. Direct effects could occur, such as entrapment within the circulating water intake. More significantly the food chain for bird species could be affected by entrainment and entrapment within the circulating water system. As a consequence, LSE could not be excluded for this screening category (table 5.4 item 10) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

k. The potential for a LSIE with other plans and projects has been identified for this European Designated Site (appendix B).

HRA Screening Matrix F3.4: Ribble and Alt Estuaries Ramsar

Name of European site and designation: Ribble and Alt Estuaries Ramsar																																
EU Code: UK11057																																
Distance to NSIP: 87.6km																																
European site features	**Likely effects of NSIP**																															
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*
A183 Lesser black-backed gull (Larus fuscus)	✓ **a**	✓ **a**	✓ **a**	✓ **b**	✓ **b**	✕ **b**	✓ **c**	✓ **c**	✓ **c**	✕ **d**	✕ **d**	✕ **d**	**e**	**e**	**e**	✕ **f**	✕ **f**	✕ **f**	✕ **g**	✕ **g**	✕ **g**	✕ **h**	✕ **h**	✕ **h**	✓ **i**	✓ **i**	✕ **i**	✓ **j**	✓ **j**	✕ **j**	✓ **k**	✓ **k**	✓ **k**

Evidence supporting conclusions:

a. Noise, vibration and visual disturbance have the potential to affect the behaviour of foraging roosting, commuting and breeding birds. Lesser black-backed gulls (*Larus fuscus*) have the potential to be affected by the project due to the fact that they may be foraging within the ZOI, therefore LSE could not be excluded (table 5.4 item 1).

b. Intertidal and subtidal land-take has the potential to impact on areas used by foraging birds through habitat loss and effects on prey species. This screening category includes the potential impact of the disposal of dredged material on subtidal habitat at Disposal Site. Lesser black-backed gulls (*Larus fuscus*) have the potential to be affected by the project due to the fact that they may be foraging within the ZOI, therefore LSE could not be excluded (table 5.4 item 2) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

c. Changes to marine water quality could affect prey species and the ability of birds to effectively forage for prey. Lesser black-backed gulls (*Larus fuscus*) have the potential to be affected by the project due to the fact that they may be foraging within the ZOI, therefore LSE could not be excluded (table 5.4 item 3a).

d. The Project is expected to give rise to changes in terrestrial water quality. However, no direct effect will occur on Ramsar sites and, therefore, LSE can be excluded (table 5.4 item 4). Indirect effects due to consequent effects on marine water quality are considered in Note c (changes to marine water quality).

e. For this Ramsar site, and associated qualifying features, changes in surface and groundwater hydrology associated with the Project are unlikely to result in an effect pathway; hence LSE can be excluded (table 5.4 item 5b).

f. The Project has the potential to result in the spread of INNS in the marine environment. The works have the potential to both spread INNS that are already established on the site and elsewhere in the UK and result in the import of INNS from outside the UK. In order to manage these risks, Horizon will prepare one (or more) Biosecurity Risk Assessment(s) and Method Statement(s) to cover all activities. Horizon will implement a monitoring programme for non-native species. This will include observational surveys on structures that may provide suitable substrate for non-native species. Surveys will record presence/abundance of non-native species, with reporting in agreement with NRW. Monitoring survey requirements for specific sites will be set out in the sub-CoCPs where relevant. Where new presence of INNS is discovered, Biosecurity Risk Assessments and Method Statements will be reviewed and amended where necessary. Wherever appropriate, workers will be given an activity specific tool-box talk from an ECoW. This will include photographs of any INNS species known to be present on a site.

For the marine environment, an initial pre-construction survey will be undertaken and regular surveys will begin once construction of the breakwaters and MOLF is completed. The frequency and extent of monitoring will reduce over time, particularly once the MOLF is no longer operational. The ongoing requirement for monitoring will be regularly reviewed and agreed with NRW. Given these measures, LSE has been excluded in this context (table 5.4 item 6).

g. A Stage 1 Screening exercise has been undertaken in support of an Environmental Permit application under Radiological Substances Regulations (RSR) (WN0908-HZCON-PAC-REP-00003). The results of the assessment demonstrate that the total dose rate predicted to arise due to the proposed Wylfa Newydd Power Station (alone and in combination with other sources) is below the relevant thresholds for the protection of European Designated Sites. Given these findings, LSE can be excluded due to change in radiation dose levels (table 5.1 item 7).

h. LSE can be excluded for this Ramsar site because the site is outside the ZOI for changes to air quality (table 5.4 item 8b).

i. The potential for LSE could not be excluded for this Ramsar site, due to potential changes to current flows and sediment transport pathways, which could affect prey species for birds (table 5.4 item 9a) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

j. Direct effects could occur, such as entrapment within the circulating water intake. More significantly the food chain for bird species could be affected by entrainment and entrapment within the circulating water system. As a consequence, LSE could not be excluded for this screening category (table 5.4 item 10) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

k. The potential for a LSIE with other plans and projects has been identified for this European Designated Site (appendix B).

HRA Screening Matrix F3.5: Morecambe Bay Ramsar

Name of European site and designation: Morecambe Bay Ramsar																																
EU Code: UK11045																																
Distance to NSIP: 106.1km																																
European site features	**Likely effects of NSIP**																															
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*
A183 Lesser black-backed gull (Larus fuscus)	✓ **a**	✓ **a**	✓ **a**	✓ **b**	✓ **b**	✕ **b**	✓ **c**	✓ **c**	✓ **c**	✕ **d**	✕ **d**	✕ **d**	**e**	**e**	**e**	✕ **f**	✕ **f**	✕ **f**	✕ **g**	✕ **g**	✕ **g**	✕ **h**	✕ **h**	✕ **h**	✓ **i**	✓ **i**	✕ **i**	✓ **j**	✓ **j**	✕ **j**	✓ **k**	✓ **k**	✓ **k**

Evidence supporting conclusions:

a. Noise, vibration and visual disturbance have the potential to affect the behaviour of foraging roosting, commuting and breeding birds. Lesser black-backed gulls *Larus fuscus* have the potential to be affected by the project due to the fact that they may be foraging within the ZOI, therefore LSE could not be excluded (table 5.4 item 1).

b. Intertidal and subtidal land-take has the potential to impact on areas used by foraging birds through habitat loss and effects on prey species. This screening category includes the potential impact of the disposal of dredged material on subtidal habitat at Disposal Site. Lesser black-backed gulls (*Larus fuscus*) have the potential to be affected by the project due to the fact that they may be foraging within the ZOI, therefore LSE could not be excluded (table 5.4 item 2) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

c. Changes to marine water quality could affect prey species and the ability of birds to effectively forage for prey. Lesser black-backed gulls (*Larus fuscus*) have the potential to be affected by the project due to the fact that they may be foraging within the ZOI, therefore LSE could not be excluded (table 5.4 item 3a).

d. The Project is expected to give rise to changes in terrestrial water quality. However, no direct effect will occur on Ramsar sites and, therefore, LSE can be excluded (table 5.4 item 4). Indirect effects due to consequent effects on marine water quality are considered in Note c (changes to marine water quality).

e. For this Ramsar site, and associated qualifying features, changes in surface and groundwater hydrology associated with the Project are unlikely to result in an effect pathway; hence LSE can be excluded (table 5.4 item 5b).

f. The Project has the potential to result in the spread of INNS in the marine environment. The works have the potential to both spread INNS that are already established on the site and elsewhere in the UK and result in the import of INNS from outside the UK. In order to manage these risks, Horizon will prepare one (or more) Biosecurity Risk Assessment(s) and Method Statement(s) to cover all activities. Horizon will implement a monitoring programme for non-native species. This will include observational surveys on structures that may provide suitable substrate for non-native species. Surveys will record presence/abundance of non-native species, with reporting in agreement with NRW. Monitoring survey requirements for specific sites will be set out in the sub-CoCPs where relevant. Where new presence of INNS is discovered, Biosecurity Risk Assessments and Method Statements will be reviewed and amended where necessary. Wherever appropriate, workers will

be given an activity specific tool-box talk from an ECoW. This will include photographs of any INNS species known to be present on a site.

For the marine environment, an initial pre-construction survey will be undertaken and regular surveys will begin once construction of the breakwaters and MOLF is completed. The frequency and extent of monitoring will reduce over time, particularly once the MOLF is no longer operational. The ongoing requirement for monitoring will be regularly reviewed and agreed with NRW. Given these measures, LSE has been excluded in this context (table 5.4 item 6).

g. A Stage 1 Screening exercise has been undertaken in support of an Environmental Permit application under Radiological Substances Regulations (RSR) (WN0908-HZCON-PAC-REP-00003). The results of the assessment demonstrate that the total dose rate predicted to arise due to the proposed Wylfa Newydd Power Station (alone and in combination with other sources) is below the relevant thresholds for the protection of European Designated Sites. Given these findings, LSE can be excluded due to change in radiation dose levels (table 5.1 item 7).

h. LSE can be excluded for this Ramsar site because the site is outside the ZOI for changes to air quality (table 5.4 item 8b).

i. The potential for LSE could not be excluded for this Ramsar site, due to potential changes to current flows and sediment transport pathways, which could affect prey species for birds (table 5.4 item 9a) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

j. Direct effects could occur, such as entrapment within the circulating water intake. More significantly the food chain for bird species could be affected by entrainment and entrapment within the circulating water system. As a consequence, LSE could not be excluded for this screening category (table 5.4 item 10) during construction and operation. LSE can be excluded for decommissioning on the basis of the evidence presented in section 5.4.

k. The potential for a LSIE with other plans and projects has been identified for this European Designated Site (appendix B).

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Appendix F.4: HRA screening matrices for the Environmental Permits and Marine Licence applications

LSE SCREENING MATRIX FOR SACs and cSACs FOR THE ENVIRONMENTAL PERMITS AND MARINE LICENCES

Key to assessment of potential for LSE
The potential for LSE cannot be excluded (see tables 5-1 to 5-4)
The potential for LSE can be excluded because, although an effect pathway exists, the receptor will not be affected by it or is not sensitive to it (see tables 5-1 to 5-4)
The potential for LSE can be excluded because no effect pathway exists

Site	**Gogledd Môn Forol/North Anglesey Marine cSAC - Wales (UK0030398)**																																			
Distance from Wylfa Newydd Development Area	**0km**																																			
Distance from zone of influence	**0km**																																			
	Changes in visual and acoustic stimuli				**Land take, including seabed or intertidal land**				**Changes in marine water quality**				**Changes in terrestrial water quality**				**Changes in surface and groundwater hydrology**				**Introduction of Invasive Non-Native Species**				**Change in radiation dose levels**				**Change in air quality**				**Alteration of coastal processes and hydro-dynamics**				**Physical interaction between species and Project infra-structure**			
Site Features (only those features in bold in appendix B are listed)	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**
1351 Harbour porpoise (*Phocoena phocoena*)																																				
Site	**Bae Cemlyn / Cemlyn Bay SAC - Wales (UK0030114)**																																			
Distance from Wylfa Newydd Development Area	**0.1km**																																			
Distance from zone of influence	**0km**																																			
	Changes in visual and acoustic stimuli				**Land take, including seabed or intertidal land**				**Changes in marine water quality**				**Changes in terrestrial water quality**				**Changes in surface and groundwater hydrology**				**Introduction of Invasive Non-Native Species**				**Change in radiation dose levels**				**Change in air quality**				**Alteration of coastal processes and hydro-dynamics**				**Physical interaction between species and Project infra-structure**			
Site Features (only those features in bold in appendix B are listed)	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**
1150 Coastal lagoons																																				
1220 Perennial vegetation of stony banks																																				
Site	**Glannau Ynys Gybi/Holy Island Coast SAC - Wales (UK0013046)**																																			
Distance from Wylfa Newydd Development Area	**13.1km**																																			
Distance from zone of influence	**0km**																																			
	Changes in visual and acoustic stimuli				**Land take, including seabed or intertidal land**				**Changes in marine water quality**				**Changes in terrestrial water quality**				**Changes in surface and groundwater hydrology**				**Introduction of Invasive Non-Native Species**				**Change in radiation dose levels**				**Change in air quality**				**Alteration of coastal processes and hydro-dynamics**				**Physical interaction between species and Project infra-structure**			
Site Features (only those features in bold in appendix B are listed)	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**
1230 Vegetated sea cliffs of the Atlantic and Baltic coasts																																				
4010 Northern Atlantic wet heaths with *Erica tetralix*																																				
4030 European dry heaths																																				
Site	**Llyn Dinam SAC - Wales (UK0030186)**																																			
Distance from Wylfa Newydd Development Area	**14.3km**																																			
Distance from zone of influence	**0km**																																			
	Changes in visual and acoustic stimuli				**Land take, including seabed or intertidal land**				**Changes in marine water quality**				**Changes in terrestrial water quality**				**Changes in surface and groundwater hydrology**				**Introduction of Invasive Non-Native Species**				**Change in radiation dose levels**				**Change in air quality**				**Alteration of coastal processes and hydro-dynamics**				**Physical interaction between species and Project infra-structure**			
Site Features (only those features in bold in appendix B are listed)	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**
3150 Natural eutrophic lakes with *Magnopotamion or Hydrocharition*-type vegetation																																				
Site	**Corsydd Môn/Anglesey Fens SAC - Wales (UK0012884)**																																			
Distance from Wylfa Newydd Development Area	**14.0km**																																			
Distance from zone of influence	**0km**																																			
	Changes in visual and acoustic stimuli				**Land take, including seabed or intertidal land**				**Changes in marine water quality**				**Changes in terrestrial water quality**				**Changes in surface and groundwater hydrology**				**Introduction of Invasive Non-Native Species**				**Change in radiation dose levels**				**Change in air quality**				**Alteration of coastal processes and hydro-dynamics**				**Physical interaction between species and Project infra-structure**			
Site Features (only those features in bold in appendix B are listed)	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**
H4010 Northern Atlantic wet heaths with *Erica tetralix*																																				
H6410 Molinia meadows on calcareous, peaty or clayey-silt-laden soils																																				
H7210 Calcareous fens with *Cladium mariscus* and species of the *Caricion davallianae*																																				
H7230 Alkaline fens																																				
H3140 Hard oligo-mesotrophic waters with benthic vegetation of *Chara* spp.																																				
1044 Southern damselfly (*Coenagrion mercuriale*)																																				
1065 Marsh fritillary butterfly (*Eurodryas, Hypodryas*)																																				
1013 Geyer's whorl snail (*Vertigo geyeri*)																																				
Site	**Afon Gwyrfai a Llyn Cwellyn SAC - Wales (UK0030046)**																																			
Distance from Wylfa Newydd Development Area	**58km**																																			
Distance from zone of influence	**52km**																																			
	Changes in visual and acoustic stimuli				**Land take, including seabed or intertidal land**				**Changes in marine water quality**				**Changes in terrestrial water quality**				**Changes in surface and groundwater hydrology**				**Introduction of Invasive Non-Native Species**				**Change in radiation dose levels**				**Change in air quality**				**Alteration of coastal processes and hydro-dynamics**				**Physical interaction between species and Project infra-structure**			
Site Features (only those features in bold in appendix B are listed)	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**
1106 Atlantic salmon (*Salmo salar*)																																				
Site	**Pen Llyn a'r Sarnau/Lleyn Peninsula and the Sarnau SAC - Wales (UK0013117)**																																			
Distance from Wylfa Newydd Development Area	**48.0km**																																			
Distance from zone of influence	**44.5km**																																			
	Changes in visual and acoustic stimuli				**Land take, including seabed or intertidal land**				**Changes in marine water quality**				**Changes in terrestrial water quality**				**Changes in surface and groundwater hydrology**				**Introduction of Invasive Non-Native Species**				**Change in radiation dose levels**				**Change in air quality**				**Alteration of coastal processes and hydro-dynamics**				**Physical interaction between species and Project infra-structure**			
Site Features (only those features in bold in appendix B are listed)	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**
1364 Grey seal (*Halichoerus grypus*)																																				
1349 Bottlenose dolphin (*Tursiops truncatus*)																																				
Site	**Gorllewin Cymru Forol / West Wales Marine cSAC - Wales/England (UK0030397)**																																			
Distance from Wylfa Newydd Development Area	**48.8km**																																			
Distance from zone of influence	**45.4km**																																			
	Changes in visual and acoustic stimuli				**Land take, including seabed or intertidal land**				**Changes in marine water quality**				**Changes in terrestrial water quality**				**Changes in surface and groundwater hydrology**				**Introduction of Invasive Non-Native Species**				**Change in radiation dose levels**				**Change in air quality**				**Alteration of coastal processes and hydro-dynamics**				**Physical interaction between species and Project infra-structure**			
Site Features (only those features in bold in appendix B are listed)	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**
1351 Harbour porpoise (*Phocoena phocoena*)																																				
Site	**Afon Eden – Cors Goch Trawsfynydd SAC - Wales (UK0030075)**																																			
Distance from Wylfa Newydd Development Area	**137km**																																			
Distance from zone of influence	**131km**																																			
	Changes in visual and acoustic stimuli				**Land take, including seabed or intertidal land**				**Changes in marine water quality**				**Changes in terrestrial water quality**				**Changes in surface and groundwater hydrology**				**Introduction of Invasive Non-Native Species**				**Change in radiation dose levels**				**Change in air quality**				**Alteration of coastal processes and hydro-dynamics**				**Physical interaction between species and Project infra-structure**			
Site Features (only those features in bold in appendix B are listed)	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**
1106 Atlantic salmon (*Salmo salar*)																																				
1029 Freshwater pearl mussel (*Margaritifera margaritifera*)																																				
Site	**Afon Dyfrdwy a Llyn Tegid / River Dee and Bala Lake SAC Wales/England (UK0030252)**																																			
Distance from Wylfa Newydd Development Area	**103km**																																			
Distance from zone of influence	**96.5km**																																			
	Changes in visual and acoustic stimuli				**Land take, including seabed or intertidal land**				**Changes in marine water quality**				**Changes in terrestrial water quality**				**Changes in surface and groundwater hydrology**				**Introduction of Invasive Non-Native Species**				**Change in radiation dose levels**				**Change in air quality**				**Alteration of coastal processes and hydro-dynamics**				**Physical interaction between species and Project infra-structure**			
Site Features (only those features in bold in appendix B are listed)	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**
1106 Atlantic salmon (*Salmo salar*)																																				
Site	**Bae Ceredigion / Cardigan Bay SAC - Wales (UK0012712)**																																			
Distance from Wylfa Newydd Development Area	**109.0km**																																			
Distance from zone of influence	**106.7km**																																			
	Changes in visual and acoustic stimuli				**Land take, including seabed or intertidal land**				**Changes in marine water quality**				**Changes in terrestrial water quality**				**Changes in surface and groundwater hydrology**				**Introduction of Invasive Non-Native Species**				**Change in radiation dose levels**				**Change in air quality**				**Alteration of coastal processes and hydro-dynamics**				**Physical interaction between species and Project infra-structure**			
Site Features (only those features in bold in appendix B are listed)	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**
1349 Bottlenose dolphin (*Tursiops truncatus*)																																				
1364 Grey seal (*Halichoerus grypus*)																																				
Site	**Afon Teifi/ River Teifi SAC - Wales (UK0012670)**																																			
Distance from Wylfa Newydd Development Area	**155km**																																			
Distance from zone of influence	**149km**																																			
	Changes in visual and acoustic stimuli				**Land take, including seabed or intertidal land**				**Changes in marine water quality**				**Changes in terrestrial water quality**				**Changes in surface and groundwater hydrology**				**Introduction of Invasive Non-Native Species**				**Change in radiation dose levels**				**Change in air quality**				**Alteration of coastal processes and hydro-dynamics**				**Physical interaction between species and Project infra-structure**			
Site Features (only those features in bold in appendix B are listed)	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**
1106 Atlantic salmon (*Salmo salar*)																																				

Appendix F.4: HRA screening matrices for the Environmental Permits and Marine Licence applications

Site	Dynesfeydd Môr Hafren / Bristol Channel Approaches cSAC - Wales/England (UK0030396)																																					
Distance from Wylfa Newydd Development Area	185.2km																																					
Distance from zone of influence	182.1km																																					
	Changes in visual and acoustic stimuli				Land take, including seabed or intertidal land				Changes in marine water quality				Changes in terrestrial water quality				Changes in surface and groundwater hydrology				Introduction of Invasive Non-Native Species				Change in radiation dose levels				Change in air quality				Alteration of coastal processes and hydro-dynamics				Physical interaction between species and Project infra-structure			
Site Features (only those features in bold in appendix B are listed)	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP
1351 Harbour porpoise (*Phocoena phocoena*)																																						
Site	**Sir Benfro Forol / Pembrokeshire Marine SAC - Wales (UK0013116)**																																					
Distance from Wylfa Newydd Development Area	186.5km																																					
Distance from zone of influence	164.7km																																					
	Changes in visual and acoustic stimuli				Land take, including seabed or intertidal land				Changes in marine water quality				Changes in terrestrial water quality				Changes in surface and groundwater hydrology				Introduction of Invasive Non-Native Species				Change in radiation dose levels				Change in air quality				Alteration of coastal processes and hydro-dynamics				Physical interaction between species and Project infra-structure			
Site Features (only those features in bold in appendix B are listed)	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP
1364 Grey seal (*Halichoerus grypus*)																																						
Site	**North Channel cSAC - Northern Ireland (UK0030399)**																																					
Distance from Wylfa Newydd Development Area	94.5km																																					
Distance from zone of influence	89.5km																																					
	Changes in visual and acoustic stimuli				Land take, including seabed or intertidal land				Changes in marine water quality				Changes in terrestrial water quality				Changes in surface and groundwater hydrology				Introduction of Invasive Non-Native Species				Change in radiation dose levels				Change in air quality				Alteration of coastal processes and hydro-dynamics				Physical interaction between species and Project infra-structure			
Site Features (only those features in bold in appendix B are listed)	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP
1351 Harbour porpoise (*Phocoena phocoena*)																																						
Site	**Murlough SAC – Northern Ireland (UK0016612)**																																					
Distance from Wylfa Newydd Development Area	117.9km																																					
Distance from zone of influence	112.9km																																					
	Changes in visual and acoustic stimuli				Land take, including seabed or intertidal land				Changes in marine water quality				Changes in terrestrial water quality				Changes in surface and groundwater hydrology				Introduction of Invasive Non-Native Species				Change in radiation dose levels				Change in air quality				Alteration of coastal processes and hydro-dynamics				Physical interaction between species and Project infra-structure			
Site Features (only those features in bold in appendix B are listed)	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP
1365 Harbour seal (*Phoca vitulina*)																																						
Site	**Strangford Lough SAC – Northern Ireland (UK0016618)**																																					
Distance from Wylfa Newydd Development Area	119.8km																																					
Distance from zone of influence	114.8km																																					
	Changes in visual and acoustic stimuli				Land take, including seabed or intertidal land				Changes in marine water quality				Changes in terrestrial water quality				Changes in surface and groundwater hydrology				Introduction of Invasive Non-Native Species				Change in radiation dose levels				Change in air quality				Alteration of coastal processes and hydro-dynamics				Physical interaction between species and Project infra-structure			
Site Features (only those features in bold in appendix B are listed)	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP
1365 Harbour seal (*Phoca vitulina*)																																						
Site	**The Maidens SAC - Northern Ireland (UK0030384)**																																					
Distance from Wylfa Newydd Development Area	180.4km																																					
Distance from zone of influence	175.4km																																					
	Changes in visual and acoustic stimuli				Land take, including seabed or intertidal land				Changes in marine water quality				Changes in terrestrial water quality				Changes in surface and groundwater hydrology				Introduction of Invasive Non-Native Species				Change in radiation dose levels				Change in air quality				Alteration of coastal processes and hydro-dynamics				Physical interaction between species and Project infra-structure			
Site Features (only those features in bold in appendix B are listed)	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP
1364 Grey seal (*Halichoerus grypus*)																																						
Site	**Rockabill to Dalkey SAC - Ireland (IE003000)**																																					
Distance from Wylfa Newydd Development Area	97.4km																																					
Distance from zone of influence	92km																																					
	Changes in visual and acoustic stimuli				Land take, including seabed or intertidal land				Changes in marine water quality				Changes in terrestrial water quality				Changes in surface and groundwater hydrology				Introduction of Invasive Non-Native Species				Change in radiation dose levels				Change in air quality				Alteration of coastal processes and hydro-dynamics				Physical interaction between species and Project infra-structure			
Site Features (only those features in bold in appendix B are listed)	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP
1351 Harbour porpoise (*Phocoena phocoena*)																																						
Site	**Lambay Island SAC – Ireland (IE0000204)**																																					
Distance from Wylfa Newydd Development Area	90.8km																																					
Distance from zone of influence	93.8km																																					
	Changes in visual and acoustic stimuli				Land take, including seabed or intertidal land				Changes in marine water quality				Changes in terrestrial water quality				Changes in surface and groundwater hydrology				Introduction of Invasive Non-Native Species				Change in radiation dose levels				Change in air quality				Alteration of coastal processes and hydro-dynamics				Physical interaction between species and Project infra-structure			
Site Features (only those features in bold in appendix B are listed)	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP
1364 Grey seal (*Halichoerus grypus*)																																						
1365 Harbour seal (*Phoca vitulina*)																																						
Site	**Slaney River Valley SAC – Ireland (IE0000781)**																																					
Distance from Wylfa Newydd Development Area	141.2km																																					
Distance from zone of influence	136.2km																																					
	Changes in visual and acoustic stimuli				Land take, including seabed or intertidal land				Changes in marine water quality				Changes in terrestrial water quality				Changes in surface and groundwater hydrology				Introduction of Invasive Non-Native Species				Change in radiation dose levels				Change in air quality				Alteration of coastal processes and hydro-dynamics				Physical interaction between species and Project infra-structure			
Site Features (only those features in bold in appendix B are listed)	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP
1365 Harbour seal (*Phoca vitulina*)																																						
Site	**Saltee Islands SAC – Ireland (IE0000707)**																																					
Distance from Wylfa Newydd Development Area	191.0km																																					
Distance from zone of influence	186km																																					
	Changes in visual and acoustic stimuli				Land take, including seabed or intertidal land				Changes in marine water quality				Changes in terrestrial water quality				Changes in surface and groundwater hydrology				Introduction of Invasive Non-Native Species				Change in radiation dose levels				Change in air quality				Alteration of coastal processes and hydro-dynamics				Physical interaction between species and Project infra-structure			
Site Features (only those features in bold in appendix B are listed)	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP
1364 Grey seal (*Halichoerus grypus*)																																						

Appendix F.4: HRA screening matrices for the Environmental Permits and Marine Licence applications

LSE SCREENING MATRIX FOR SPAs and pSPAs FOR THE ENVIRONMENTAL PERMITS AND MARINE LICENCES

Site	Morwenoliaid Ynys Môn / Anglesey Terns SPA - Wales (UK9013061)																																			
Distance from Wylfa Newydd Development Area	0km																																			
Distance from zone of influence	0km																																			
	Changes in visual and acoustic stimuli				Land take, including seabed or intertidal land				Changes in marine water quality				Changes in terrestrial water quality				Changes in surface and groundwater hydrology				Introduction of Invasive Non-Native Species				Change in radiation dose levels				Change in air quality				Alteration of coastal processes and hydro-dynamics				Physical interaction between species and Project infra-structure			
Site Features (only those features in bold in appendix D are listed)	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP
A194 Arctic tern (*Sterna paradisaea*)																																				
A191 Sandwich tern (*Sterna sandvicensis*)																																				
A192 Roseate tern (*Sterna dougallii*)																																				
A193 Common tern (*Sterna hirundo*)																																				
Site	**Glannau Ynys Gybi / Holy Island Coast SPA - Wales (UK9013101)**																																			
Distance from Wylfa Newydd Development Area	13.1km																																			
Distance from zone of influence	0km																																			
	Changes in visual and acoustic stimuli				Land take, including seabed or intertidal land				Changes in marine water quality				Changes in terrestrial water quality				Changes in surface and groundwater hydrology				Introduction of Invasive Non-Native Species				Change in radiation dose levels				Change in air quality				Alteration of coastal processes and hydro-dynamics				Physical interaction between species and Project infra-structure			
Site Features (only those features in bold in appendix D are listed)	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP
A346 Red-billed chough (*Pyrrhocorax pyrrhocorax*)																																				
Site	**Ynys Seiriol / Puffin Island SPA - Wales (UK9020285)**																																			
Distance from Wylfa Newydd Development Area	30.2km																																			
Distance from zone of influence	0km																																			
	Changes in visual and acoustic stimuli				Land take, including seabed or intertidal land				Changes in marine water quality				Changes in terrestrial water quality				Changes in surface and groundwater hydrology				Introduction of Invasive Non-Native Species				Change in radiation dose levels				Change in air quality				Alteration of coastal processes and hydro-dynamics				Physical interaction between species and Project infra-structure			
Site Features (only those features in bold in appendix D are listed)	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP
A017 Great cormorant (*Phalacrocorax carbo*)																																				
Site	**Glannau Aberdaron and Ynys Enlli / Aberdaron Coast Bardsey Island SPA - Wales (UK9013121)**																																			
Distance from Wylfa Newydd Development Area	63.3km																																			
Distance from zone of influence	59.3km																																			
	Changes in visual and acoustic stimuli				Land take, including seabed or intertidal land				Changes in marine water quality				Changes in terrestrial water quality				Changes in surface and groundwater hydrology				Introduction of Invasive Non-Native Species				Change in radiation dose levels				Change in air quality				Alteration of coastal processes and hydro-dynamics				Physical interaction between species and Project infra-structure			
Site Features (only those features in bold in appendix D are listed)	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP
A013 Manx shearwater (*Puffinus puffinus*)																																				
A346 Red-billed chough (*Pyrrhocorax pyrrhocorax*)																																				
Site	**Mynydd Cilan, Trwyn y Wylfa ac Ynysoedd Sant Tudwal / Mynydd Cilan, Trwyn y Wylfa and the St. Tudwal Islands SPA - Wales (UK9020282)**																																			
Distance from Wylfa Newydd Development Area	65.1km																																			
Distance from zone of influence	52.2km																																			
	Changes in visual and acoustic stimuli				Land take, including seabed or intertidal land				Changes in marine water quality				Changes in terrestrial water quality				Changes in surface and groundwater hydrology				Introduction of Invasive Non-Native Species				Change in radiation dose levels				Change in air quality				Alteration of coastal processes and hydro-dynamics				Physical interaction between species and Project infra-structure			
Site Features (only those features in bold in appendix D are listed)	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP
A346 Red-billed chough (*Pyrrhocorax pyrrhocorax*)																																				
Site	**Aber Afen Dyfrdwy / Dee Estuary SPA – Wales / England (UK9013011)**																																			
Distance from Wylfa Newydd Development Area	60.2km																																			
Distance from zone of influence	65.7km																																			
	Changes in visual and acoustic stimuli				Land take, including seabed or intertidal land				Changes in marine water quality				Changes in terrestrial water quality				Changes in surface and groundwater hydrology				Introduction of Invasive Non-Native Species				Change in radiation dose levels				Change in air quality				Alteration of coastal processes and hydro-dynamics				Physical interaction between species and Project infra-structure			
Site Features (only those features in bold in appendix D are listed)	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP
A191 Sandwich tern (*Sterna sandvicensis*)																																				
Site	**Skomer, Skokholm and the seas off Pembrokeshire / Sgomer, Gogwm a moroedd Benfro SPA - Wales (UK9014051)**																																			
Distance from Wylfa Newydd Development Area	187.1km																																			
Distance from zone of influence	182.8km																																			
	Changes in visual and acoustic stimuli				Land take, including seabed or intertidal land				Changes in marine water quality				Changes in terrestrial water quality				Changes in surface and groundwater hydrology				Introduction of Invasive Non-Native Species				Change in radiation dose levels				Change in air quality				Alteration of coastal processes and hydro-dynamics				Physical interaction between species and Project infra-structure			
Site Features (only those features in bold in appendix D are listed)	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP
A013 Manx shearwater (*Puffinus puffinus*)																																				
Site	**Grassholm SPA - Wales (UK9014041)**																																			
Distance from Wylfa Newydd Development Area	194.8km																																			
Distance from zone of influence	190.8km																																			
	Changes in visual and acoustic stimuli				Land take, including seabed or intertidal land				Changes in marine water quality				Changes in terrestrial water quality				Changes in surface and groundwater hydrology				Introduction of Invasive Non-Native Species				Change in radiation dose levels				Change in air quality				Alteration of coastal processes and hydro-dynamics				Physical interaction between species and Project infra-structure			
Site Features (only those features in bold in appendix D are listed)	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP
A016 Gannet (*Morus bassanus*)																																				
Site	**Mersey Narrows and North Wirral Foreshore SPA – England (UK9020287)**																																			
Distance from Wylfa Newydd Development Area	82km																																			
Distance from zone of influence	77.3km																																			
	Changes in visual and acoustic stimuli				Land take, including seabed or intertidal land				Changes in marine water quality				Changes in terrestrial water quality				Changes in surface and groundwater hydrology				Introduction of Invasive Non-Native Species				Change in radiation dose levels				Change in air quality				Alteration of coastal processes and hydro-dynamics				Physical interaction between species and Project infra-structure			
Site Features (only those features in bold in appendix D are listed)	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP
A193 Common tern (Sterna hirundo)																																				
Site	**Ribble and Alt Estuaries SPA – England (UK9005103)**																																			
Distance from Wylfa Newydd Development Area	87.6km																																			
Distance from zone of influence	82.5km																																			
	Changes in visual and acoustic stimuli				Land take, including seabed or intertidal land				Changes in marine water quality				Changes in terrestrial water quality				Changes in surface and groundwater hydrology				Introduction of Invasive Non-Native Species				Change in radiation dose levels				Change in air quality				Alteration of coastal processes and hydro-dynamics				Physical interaction between species and Project infra-structure			
Site Features (only those features in bold in appendix D are listed)	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP
A183 Lesser black-backed gull (*Larus fuscus*)																																				
Site	**Bowland Fells SPA - England (UK9005151)**																																			
Distance from Wylfa Newydd Development Area	128.8km																																			
Distance from zone of influence	123.7km																																			
	Changes in visual and acoustic stimuli				Land take, including seabed or intertidal land				Changes in marine water quality				Changes in terrestrial water quality				Changes in surface and groundwater hydrology				Introduction of Invasive Non-Native Species				Change in radiation dose levels				Change in air quality				Alteration of coastal processes and hydro-dynamics				Physical interaction between species and Project infra-structure			
Site Features (only those features in bold in appendix D are listed)	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP
A183 Lesser black-backed gull (*Larus fuscus*)																																				
Site	**Morecambe Bay SPA – England (UK9005081)**																																			
Distance from Wylfa Newydd Development Area	106.1km																																			
Distance from zone of influence	102.3km																																			
	Changes in visual and acoustic stimuli				Land take, including seabed or intertidal land				Changes in marine water quality				Changes in terrestrial water quality				Changes in surface and groundwater hydrology				Introduction of Invasive Non-Native Species				Change in radiation dose levels				Change in air quality				Alteration of coastal processes and hydro-dynamics				Physical interaction between species and Project infra-structure			
Site Features (only those features in bold in appendix D are listed)	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP
SBA Seabird assemblage of international importance (herring gull and lesser black-backed gull)																																				
Site	**Morecambe Bay and Duddon Estuary pSPA – England**																																			
Distance from Wylfa Newydd Development Area	106.1km																																			
Distance from zone of influence	101.1km																																			
	Changes in visual and acoustic stimuli				Land take, including seabed or intertidal land				Changes in marine water quality				Changes in terrestrial water quality				Changes in surface and groundwater hydrology				Introduction of Invasive Non-Native Species				Change in radiation dose levels				Change in air quality				Alteration of coastal processes and hydro-dynamics				Physical interaction between species and Project infra-structure			
Site Features (only those features in bold in appendix D are listed)	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP
A183 Lesser black-backed gull (*Larus fuscus*)																																				
SBA Seabird assemblage of international importance (herring gull and lesser black-backed gull)																																				
Site	**Lambay Island SPA - Ireland (004069)**																																			
Distance from Wylfa Newydd Development Area	99km																																			
Distance from zone of influence	93.8km																																			
	Changes in visual and acoustic stimuli				Land take, including seabed or intertidal land				Changes in marine water quality				Changes in terrestrial water quality				Changes in surface and groundwater hydrology				Introduction of Invasive Non-Native Species				Change in radiation dose levels				Change in air quality				Alteration of coastal processes and hydro-dynamics				Physical interaction between species and Project infra-structure			
Site Features (only those features in bold in appendix D are listed)	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP
A009 Fulmar (*Fulmarus glacialis*)																																				
A183 Lesser black-backed gull (*Larus fuscus*)																																				
A199 Guillemot (*Uria aalge*)																																				
A204 Puffin (*Fratercula arctica*)																																				
Site	**Ireland's Eye SPA - Ireland (004117)**																																			
Distance from Wylfa Newydd Development Area	102.8km																																			
Distance from zone of influence	97.8km																																			
	Changes in visual and acoustic stimuli				Land take, including seabed or intertidal land				Changes in marine water quality				Changes in terrestrial water quality				Changes in surface and groundwater hydrology				Introduction of Invasive Non-Native Species				Change in radiation dose levels				Change in air quality				Alteration of coastal processes and hydro-dynamics				Physical interaction between species and Project infra-structure			
Site Features (only those features in bold in appendix D are listed)	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP
A199 Guillemot (*Uria aalge*)																																				

Appendix F.4: HRA screening matrices for the Environmental Permits and Marine Licence applications

Site	East Coast Marine pSPA – Northern Ireland (UK9020320)																																			
Distance from Wylfa Newydd Development Area	117km																																			
Distance from zone of influence	112m																																			
	Changes in visual and acoustic stimuli				Land take, including seabed or intertidal land				Changes in marine water quality				Changes in terrestrial water quality				Changes in surface and groundwater hydrology				Introduction of Invasive Non-Native Species				Change in radiation dose levels				Change in air quality				Alteration of coastal processes and hydro-dynamics				Physical interaction between species and Project infra-structure			
Site Features (only those features in bold in appendix D are listed)	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP
A013 Manx shearwater (*Puffinus puffinus*)																																				
Site	**Copeland Islands SPA - Ireland (UK9020291)**																																			
Distance from Wylfa Newydd Development Area	154.4km																																			
Distance from zone of influence	149.5km																																			
	Changes in visual and acoustic stimuli				Land take, including seabed or intertidal land				Changes in marine water quality				Changes in terrestrial water quality				Changes in surface and groundwater hydrology				Introduction of Invasive Non-Native Species				Change in radiation dose levels				Change in air quality				Alteration of coastal processes and hydro-dynamics				Physical interaction between species and Project infra-structure			
Site Features (only those features in bold in appendix D are listed)	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP
A013 Manx shearwater (*Puffinus puffinus*)																																				
Site	**Saltee Islands SPA – Ireland (004002)**																																			
Distance from Wylfa Newydd Development Area	197.5km																																			
Distance from zone of influence	186km																																			
	Changes in visual and acoustic stimuli				Land take, including seabed or intertidal land				Changes in marine water quality				Changes in terrestrial water quality				Changes in surface and groundwater hydrology				Introduction of Invasive Non-Native Species				Change in radiation dose levels				Change in air quality				Alteration of coastal processes and hydro-dynamics				Physical interaction between species and Project infra-structure			
Site Features (only those features in bold in appendix D are listed)	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP
A009 Fulmar (*Fulmarus glacialis*)																																				
A016 Gannet (*Morus bassanus)*																																				
Site	**Rathlin Island SPA – Northern Ireland (UK9020011)**																																			
Distance from Wylfa Newydd Development Area	231.3km																																			
Distance from zone of influence	226.2km																																			
	Changes in visual and acoustic stimuli				Land take, including seabed or intertidal land				Changes in marine water quality				Changes in terrestrial water quality				Changes in surface and groundwater hydrology				Introduction of Invasive Non-Native Species				Change in radiation dose levels				Change in air quality				Alteration of coastal processes and hydro-dynamics				Physical interaction between species and Project infra-structure			
Site Features (only those features in bold in appendix D are listed)	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP
SBA Seabird assemblage of international importance (herring gull and lesser black-backed gull)																																				
Site	**Horn Head to Fanad Head SPA – Ireland (004194)**																																			
Distance from Wylfa Newydd Development Area	279.7km																																			
Distance from zone of influence	274.7km																																			
	Changes in visual and acoustic stimuli				Land take, including seabed or intertidal land				Changes in marine water quality				Changes in terrestrial water quality				Changes in surface and groundwater hydrology				Introduction of Invasive Non-Native Species				Change in radiation dose levels				Change in air quality				Alteration of coastal processes and hydro-dynamics				Physical interaction between species and Project infra-structure			
Site Features (only those features in bold in appendix D are listed)	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP
A009 Fulmar (*Fulmarus glacialis*)																																				
Site	**West Donegal Coast SPA – Ireland (004150)**																																			
Distance from Wylfa Newydd Development Area	297.7km																																			
Distance from zone of influence	302.7km																																			
	Changes in visual and acoustic stimuli				Land take, including seabed or intertidal land				Changes in marine water quality				Changes in terrestrial water quality				Changes in surface and groundwater hydrology				Introduction of Invasive Non-Native Species				Change in radiation dose levels				Change in air quality				Alteration of coastal processes and hydro-dynamics				Physical interaction between species and Project infra-structure			
Site Features (only those features in bold in appendix D are listed)	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP
A009 Fulmar (*Fulmarus glacialis*)																																				
Site	**Tory Island SPA – Ireland (004073)**																																			
Distance from Wylfa Newydd Development Area	314.5km																																			
Distance from zone of influence	309.5km																																			
	Changes in visual and acoustic stimuli				Land take, including seabed or intertidal land				Changes in marine water quality				Changes in terrestrial water quality				Changes in surface and groundwater hydrology				Introduction of Invasive Non-Native Species				Change in radiation dose levels				Change in air quality				Alteration of coastal processes and hydro-dynamics				Physical interaction between species and Project infra-structure			
Site Features (only those features in bold in appendix D are listed)	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP
A009 Fulmar (*Fulmarus glacialis*)																																				
Site	**Ailsa Craig SPA – Scotland (UK9003091)**																																			
Distance from Wylfa Newydd Development Area	205.2km																																			
Distance from zone of influence	200.2km																																			
	Changes in visual and acoustic stimuli				Land take, including seabed or intertidal land				Changes in marine water quality				Changes in terrestrial water quality				Changes in surface and groundwater hydrology				Introduction of Invasive Non-Native Species				Change in radiation dose levels				Change in air quality				Alteration of coastal processes and hydro-dynamics				Physical interaction between species and Project infra-structure			
Site Features (only those features in bold in appendix D are listed)	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP
A016 Gannet (*Morus bassanus*)																																				

LSE SCREENING MATRIX FOR RAMSAR SITES FOR THE ENVIRONMENTAL PERMITS AND MARINE LICENCES

Site	Corsydd Môn a Llyn/Anglesey and Llyn Fens Ramsar - Wales (UK14005)																																			
Distance from Wylfa Newydd Development Area	14.0km																																			
Distance from zone of influence	0km																																			
	Changes in visual and acoustic stimuli				Land take, including seabed or intertidal land				Changes in marine water quality				Changes in terrestrial water quality				Changes in surface and groundwater hydrology				Introduction of Invasive Non-Native Species				Change in radiation dose levels				Change in air quality				Alteration of coastal processes and hydro-dynamics				Physical interaction between species and Project infra-structure			
Site Features (only those features in bold in appendix C are listed)	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP
Suite of base-rich, calcareous fens which is a rare habitat type within the United Kingdom's biogeographical																																				
Diverse flora and fauna with associated rare species and is of special value for maintaining the genetic and ecological diversity of the region																																				
Site	**Ribble and Alt Estuaries Ramsar – England (UK11057)**																																			
Distance from Wylfa Newydd Development Area	87.6km																																			
Distance from zone of influence	82.5km																																			
	Changes in visual and acoustic stimuli				Land take, including seabed or intertidal land				Changes in marine water quality				Changes in terrestrial water quality				Changes in surface and groundwater hydrology				Introduction of Invasive Non-Native Species				Change in radiation dose levels				Change in air quality				Alteration of coastal processes and hydro-dynamics				Physical interaction between species and Project infra-structure			
Site Features (only those features in bold in appendix C are listed)	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP
A183 Lesser black-backed gull (*Larus fuscus*)																																				
Site	**Morecambe Bay Ramsar – England (UK11045)**																																			
Distance from Wylfa Newydd Development Area	106.1km																																			
Distance from zone of influence	102.3km																																			
	Changes in visual and acoustic stimuli				Land take, including seabed or intertidal land				Changes in marine water quality				Changes in terrestrial water quality				Changes in surface and groundwater hydrology				Introduction of Invasive Non-Native Species				Change in radiation dose levels				Change in air quality				Alteration of coastal processes and hydro-dynamics				Physical interaction between species and Project infra-structure			
Site Features (only those features in bold in appendix C are listed)	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP
A183 Lesser black-backed gull (*Larus fuscus*)																																				
Site	**Mersey Narrows and North Wirral Foreshore Ramsar – England (UK11042)**																																			
Distance from Wylfa Newydd Development Area	82km																																			
Distance from zone of influence	77.3km																																			
	Changes in visual and acoustic stimuli				Land take, including seabed or intertidal land				Changes in marine water quality				Changes in terrestrial water quality				Changes in surface and groundwater hydrology				Introduction of Invasive Non-Native Species				Change in radiation dose levels				Change in air quality				Alteration of coastal processes and hydro-dynamics				Physical interaction between species and Project infra-structure			
Site Features (only those features in bold in appendix D are listed)	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP
A193 Common tern (Sterna hirundo)																																				
Site	**Aber Afen Dyfrdwy / Dee Estuary Ramsar – Wales / England (UK11082)**																																			
Distance from Wylfa Newydd Development Area	60.2km																																			
Distance from zone of influence	65.7km																																			
	Changes in visual and acoustic stimuli				Land take, including seabed or intertidal land				Changes in marine water quality				Changes in terrestrial water quality				Changes in surface and groundwater hydrology				Introduction of Invasive Non-Native Species				Change in radiation dose levels				Change in air quality				Alteration of coastal processes and hydro-dynamics				Physical interaction between species and Project infra-structure			
Site Features (only those features in bold in appendix D are listed)	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP
A191 Sandwich tern (*Sterna sondvicensis*)																																				

Appendix G Centre for Ecology and Hydrology advice on critical loads (nitrogen and acid deposition) for perennial vegetation of stony banks

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Centre for Ecology & Hydrology
NATURAL ENVIRONMENT RESEARCH COUNCIL

Wylfa Newydd Power Station – Case Work towards the Shadow HRA

Review of case work, literature, and critical load assessment

CEH contact details

Laurence Jones & Bill Bealey
Centre for Ecology & Hydrology, Bush Estate, Penicuik, EH26 0QB

t: 0131 4458529
e: bib@ceh.ac.uk
e: lj@ceh.ac.uk

29/01/2018

Task 1 Undertake a literature review to ascertain the most appropriate analogue habitat for 'perennial vegetation of stony banks' (in the absence of defined critical loads for this habitat type).

1. The interest feature is Natura 2000 habitat 1220 'Perennial vegetation of stony banks' which comprises perennial vegetation of the upper beaches of great shingle banks, formed by *Crambe maritima, Honkenya peploides* and other perennial species. A wide range of vegetation types may be found on large shingle structures inland of the upper beach. On more mature stable shingle, coastal forms of grassland, heath and scrub vegetation may develop. Some areas of unusual vegetation dominated by lichens and bryophytes are found on more mature shingle[1].

2. At Cemlyn Bay, the feature is found on the shingle ridge between Bae Cemlyn and the lagoon, and in patches on Trwyn Cemlyn to the north. The feature comprises of two distinct habitats. The more open shingle comprises the NVC SD1 *Rumex crispus-Glaucium flavum* community. This habitat includes the rare *Crambe maritima*. The second habitat occurs leeward of the open shingle towards the back of the ridge, and comprises *Festuca* dominated grassland with salt-spray tolerant species such as *Plantago maritima* and *Armeria maritima*, according to the Core Management Plan, 2008[2] and the SAC monitoring report 2007[3].

3. The vegetation of the shingle bar is described in detail in Sneddon & Randall (1993). Comparing vegetation descriptions in Sneddon & Randall (1993) with community descriptions in Rodwell (2000), these fit most closely to the following National Vegetation Classification communities: The crest and seaward facing parts of the bar consist of the shingle community of SD1 '*Rumex crispus - Glaucium flavum'*. The leeward side of the bar facing the lagoon contains maritime cliff community MC8 '*Festuca rubra - Armeria maritima* maritime grassland' in the middle of bar, grading to MC9 '*Festuca rubra - Holcus lanatus* maritime grassland' in more sheltered areas at the ends of the bars. Narrow areas of saltmarsh SM16 '*Festuca rubra* salt-marsh community' fringe parts of the edge of the bar where it joins the lagoon. From these descriptions we conclude that the more stable fixed shingle grassland at the leeward side of the ridge has close affinities with maritime cliff grassland communities.

4. Of note is that the shingle bank is subject to disturbance during storms and high tides, including overtopping of the bar at its narrowest point on very high tides.

[1] http://eunis.eea.europa.eu/habitats/10013
[2] https://www.naturalresources.wales/media/671214/Cemlyn%20WES32%20plan%20English.pdf
[3] Pybus R. (2007). Bae Cemlyn SAC UK0030114. Perennial Vegetation of Stony Banks 1220. SAC Monitoring report 2007.

5. According to the site Core Management Plan, good quality habitat of the feature will:

    - Show no signs of trampling damage to *Crambe maritima* (crushed or snapped leaves)
    - Have at least two of the following species present:
        - *Atriplex spp*
        - *Beta vulgaris*
        - *Crambe maritima*
        - *Glaucium flavum*
        - *Rumex crispus*
    - Have <5% grass cover
    - Not have *Crocosmia* and /or *Fallopia japonica*

6. These quality characteristics relate primarily to the shingle community SD1, and the 5% cover threshold for grass cover is used solely to identify the boundary between the open shingle and the *Festuca* dominated shingle communities[4]. However, assessment of nitrogen impacts may be relevant to all vegetation types occurring on the shingle bar, and communities considered analogous in terms of potential nitrogen deposition impacts such as maritime cliff grasslands and acidic dune grasslands SD11 '*Carex arenaria - Cornicularia aculeata* dune community' and SD12 '*Carex arenaria - Festuca ovina - Agrostis capillaris* dune grassland'. Aspects relevant to the nitrogen sensitivity of all these communities are discussed below.

7. The shingle community SD1 is the characteristic pioneer vegetation of maritime shingle around England, Wales and parts of southern Scotland (Rodwell, 2000). The substrate can be either calcareous or acidic. It is a widely distributed community within this range on fine to coarse shingle. The vegetation germinates from seed or regrows from plant fragments along the high tide line amongst rotting seaweed and other marine debris. This organic matter acts as fertiliser and helps retain moisture during dry periods. The community includes rare species such as Sea kale *Crambe maritima*. It receives nutrient inputs from saltspray and marine debris in addition to atmospheric nitrogen deposition.

8. Maritime cliff vegetation has similarities to shingle vegetation in that it is also frequently exposed to salt spray, with the associated salt stress and nutrients (see point 11). However, in contrast to vegetation on active shingle, the vegetation is disturbed less frequently, for example, by coastal erosion or by sea birds. Note that the communities present on the Cemlyn bar are not similar to the variants maritime cliff grassland communities regularly disturbed by sea-birds.

[4] Pybus R. (2007). Bae Cemlyn SAC UK0030114. Perennial Vegetation of Stony Banks 1220. SAC Monitoring report 2007.

9. Saltmarsh is an intertidal habitat, with tidal inundation varying according to marsh elevation. The upper marsh may only be inundated on the highest spring tides. Due to this tidal inundation, saltmarsh can be considered to have an 'open' nitrogen cycle, i.e. it receives nutrients from the sea in the form of macro-algae and other marine debris, as well as from atmospheric deposition.

10. Acidic dune grassland has the following characteristics in common with older vegetated shingle which is no longer actively reworked by the sea. The substrate is acidic, and poorly buffered (acidic) habitats typically have a greater sensitivity to N deposition than well buffered (calcareous) habitats (Bobbink and Hettelingh, 2011; Jones et al., 2004; Remke et al., 2009). For fixed dune grassland it is recommended to use the lower end of the critical load range for acidic dunes and the upper end of the critical load range for calcareous dunes (Bobbink and Hettelingh, 2011). Lichens form an important component of the community.

11. In addition to atmospheric deposition, habitats close to the shore also receive nutrients such as nitrogen and potassium from salt spray (Etherington, 1967; Jones et al., 2002). Nitrate from marine aerosols can be detected up to 1 km inland (Lowe et al., 1996). In general, aerosol deposition is greatest near the sea and decreases exponentially inland. For example, salt spray at 100m inland of a cliff edge is only 20% of the values at the cliff edge itself (Malloch, 1997).

Task 2 Identify the most appropriate critical load for nitrogen and acid deposition against which to compare the modelled effect of the Wylfa Newydd Project.

Empirical critical loads for nitrogen for UK habitats were reviewed and recommended by JNCC as part of the nitrogen decision framework (Jones et al., 2016), including for habitats where critical loads have not been defined, based on analogue habitats with similar sensitivity to atmospheric nitrogen deposition. These are shown in

12. Table 1. The critical load for each community is discussed and a decision made on which is the most appropriate analogue for assessment of nitrogen impacts on the feature.

Table 1. Critical loads from Bobbink & Hettelingh (2011) and details of classification and appropriate analogue habitats extracted from the JNCC nitrogen decision framework Factor 1 spreadsheets (Jones et al. 2016).

JNCC CSM Guidance habitat types	NVC/vegetation types (as listed in CSM table where relevant) (*part only)	Annex I types included (*part only)	EUNIS classes for component habitats	EUNIS class name(s)	EUNIS class name for possible analogue habitats	CL range (kg N /ha/yr)
1a. Maritime grassland and rock-crevice communities	MC1-12, CG1f	H1230*	B3.31	Atlantic sea cliff communities		No critical load
3b. Saltmarsh (mid-upper)	SM14*, SM15-20	H1330*	A2.53	Mid-upper saltmarshes & saline & brackish reed, rush & sedge beds		20-30
9a. Shingle beach driftlines and open shingle vegetation	SD1-3*, MC6*, other	H1210 H1220*	B2.1 B2.3	Shingle beach driftlines; B2.3 Upper shingle beaches with open vegetation		Habitat not sensitive to N deposition
9b. Shingle grasslands	Various non-NVC Arrhenatherum and Festuca types	H1220*	B2.4	B2.4 Fixed shingle beaches with herbaceous vegetation	Coastal stable dune grassland (grey dunes)	8-15

13. Maritime cliffs have no critical load defined due to an absence of experiments or surveys addressing this issue for this vegetation type, and no sufficiently similar analogue habitats.

14. While frequently inundated, saltmarsh suffers less disturbance than the above communities. Its open nitrogen cycle means that it receives more nitrogen than terrestrial plant communities, from marine sources. Nonetheless, experiments have shown some sensitivity to elevated nitrogen inputs at levels ranging from 50 kg N/ha/yr and higher (Van Wijnen and Bakker, 1999). Based on evidence from limited studies and expert judgement the critical load is set at 20 – 30 kg N/ha/yr (Bobbink and Hettelingh, 2011; Boorman and Hazelden, 2012).

15. Shingle beach driftlines and open shingle vegetation are suggested to be 'Not sensitive to N deposition' since they are frequently disturbed by tidal activity and receive nutrient inputs from seawater, marine debris and from salt-spray, in addition to atmospheric deposition. Although the magnitude of these marine inputs of nitrogen has not been quantified to our knowledge, it is not insignificant. This is borne out by the relatively nitrophilic nature of the species growing in these habitats. For example, the mean Ellenberg N (nutrient) index for strandline communities on sandy beaches (SD3) is 6.1, compared with a value of 3.9 for

fixed calcareous dune grassland SD8 or 3.4 for acidic dune grassland SD12 (Jones and Stevens, 2017; Jones et al., 2002). The mean Ellenberg N index for the shingle community SD1 was not calculated in those studies, which focused on dune vegetation only. Higher Ellenberg N values indicate more nitrophilic vegetation. For comparison, the Ellenberg N index for *Urtica dioica* (stinging nettle) is 8. The frequency of disturbance is likely to be the dominant ecological influence on plant growth and community composition in this habitat. This also means that only rapidly growing plants are able to persist in such communities which, by necessity, require reasonably high levels of nitrogen input.

Both acidic dune grassland and (inland) shingle grassland (Type 9b in

16. Table 1) are likely to be more sensitive to nitrogen than the vegetation of shingle on and immediately adjacent to beaches. They experience relatively little physical disturbance and are typically located further inland where saltspray influence is reduced and they have closed nutrient cycles. In the critical loads guidance, the choice of analogue habitat of acidic dune grassland as a proxy for vegetated shingle is based primarily on comparison with extensive areas of vegetated shingle on the southern English coast. This may not be the most appropriate proxy for the vegetation types occurring on shingle at Cemlyn Bay. Given its proximity to the sea, and floristic affinities with maritime cliff grasslands, we feel that some of the maritime cliff grassland communities might be a better analogue habitat for nitrogen effects.

17. We summarise the appropriate critical loads for nitrogen and for acidity below:

18. For the **vegetation on the shingle bank at Cemlyn which corresponds to SD1 shingle vegetation**: Based on the characteristics of the vegetation of stony banks, its proximity to the sea, the frequency with which it is disturbed by tidal action and storms, and the Ellenberg N values of the dominant species (*Crambe maritima* = 7; *Glaucium flavum* = 6; *Rumex crispus* = 6 (Hill et al., 1999)), we suggest that this community is considered **not sensitive to nitrogen deposition**, following guidance from the JNCC nitrogen decision framework (Jones et al., 2016).

19. For the ***Festuca* dominated vegetation on the lee of the shingle bank corresponding to MC8 and MC9 maritime cliff vegetation, and the SM16 saltmarsh vegetation:** In the absence of a critical load for the maritime cliff communities, and given their proximity to the sea and associated saltspray, we recommend that **a critical load of 20 – 30 kg N/ha/yr** is applied, using saltmarsh as the most appropriate analogue.

20. With respect to acid deposition, it is likely that the input of sodium and magnesium ions from salt spray and other material from marine debris will provide sufficient buffering of small quantities of deposition of acidic compounds. **Therefore, we do not expect these communities to be sensitive to acid deposition**. It should be noted that this constitutes expert judgement and the amount of buffering capacity from the sea has not been measured.

Task 3 Advise on the likely effect of nitrogen and acid deposition on the perennial vegetation of stony banks qualifying feature (e.g. species composition, distribution and extent).

21. Gradient surveys and experiments have established the likely responses to elevated nitrogen of a number of species found in coastal communities, which

may be relevant to perennial vegetation of stony banks. These are summarised below.

22. As a general rule across most habitats, including coastal habitats, the percentage cover and species richness of bryophytes and lichens declines with increasing nitrogen above the critical load (Caporn et al. 2016; Field et al. 2014). This has been demonstrated in calcareous and in acidic dunes (Jones et al. 2004; Field et al. 2014). In dunes, the moss *Hylocomium splendens* is considered an indicator of nitrogen enrichment in UK surveys, declining in abundance with additional N above deposition loads of 20 kg N ha^{-1} yr^{-1} (Caporn et al. 2016; Field et al. 2014). Another moss, *Campylopus introflexus* is also considered an indicator of nitrogen enrichment in dunes and heaths in the Netherlands, particularly in drier dune habitats (Sparrius & Kooijman 2011). By contrast, this moss increases in response to nitrogen. Neither of these species are present on the bar at Cemlyn to our knowledge. The community composition of moss and lichen species in the vegetation on the bar is likely to be fairly specialised due to salt spray inputs and disturbance from wave action.

23. Another widespread response of plant communities is an increase in the cover of graminoids (grasses, sedges and rushes) (Maskell et al. 2010). In acidic dune grasslands in the Baltic, and in species mixture experiments, the sand sedge *Carex arenaria* increases with N deposition above the critical load for dunes (van den Berg et al. 2005; Remke et al. 2009). The biomass of some nitrogen-tolerant species found in coastal dunes has been shown to increase with added nitrogen: the grass *Dactylis glomerata* increased above 24 kg N ha^{-1} yr^{-1}, and the forb *Plantago lanceolata* at rates between 2 - 24 kg N ha^{-1} yr^{-1} (Jones et al. 2013).

24. The grass *Festuca rubra* is commonly found in neutral to calcareous soils and is an important component of many coastal communities, including the vegetation of stony banks and of maritime cliffs, the suggested appropriate analogue vegetation for assessing nitrogen impacts. There is limited evidence in the literature on its response to N. In two experiments as part of a species mixture in open-top chambers and in polytunnels, it increased in biomass with an increase in N addition from 2 to 24 kg N ha^{-1} yr^{-1} under ammonia fumigation, and an increase from 6 to 14 kg N ha^{-1} yr^{-1} using simulated wet deposition. However, in a field exposure of species mixtures in pots along an ammonia gradient it showed no change in biomass (Jones et al. 2013). Another coastal species for which nitrogen responses are known is *Ononis repens* which, in calcareous grassland starts to decline in abundance above nitrogen loads of 8 kg N ha^{-1} yr^{-1} (Caporn et al. 2016). However, we are not aware whether it occurs on the shingle bar at Cemlyn.

25. Rates of species loss above the critical load have been defined for a number of communities. In sand dunes, the rate is just under 1 species (per 20 m^2) lost for each additional kg of nitrogen in deposition, above the critical load of 8 kg N ha^{-1} yr^{-1} (Caporn et al. 2011).

26. The estimated increases in nitrogen deposition for different phases of the Project are summarised in Table 2 below. The increases are relatively low and well below the proposed critical load to be used for the perennial vegetation of stony banks feature.

Table 2. Nitrogen deposition, baseline and predicted change due to the Project

	Nitrogen deposition (kgN/ha/yr)		
Activity	**2020 baseline**	**Nitrogen from activity**	**Total**
2020 peak earthworks and Marine Works scenario – change to nitrogen deposition rate at Bae Cemlyn/Cemlyn Bay SAC	9.9	1.1	11
2023 peak construction scenario – change to nitrogen deposition at Bae Cemlyn/Cemlyn Bay SAC	9.9	0.2	10.1
Operational combustion plant long-term scenario – change to nitrogen deposition rate at Bae Cemlyn/Cemlyn Bay SAC	9.9	0.05	10

27. The combined total deposition will be below the critical load for the *Festuca* dominated vegetation on the lee of the shingle bank (corresponding to MC8 and MC9 maritime cliff vegetation), and the SM16 saltmarsh vegetation. The vegetation on the shingle bank (which corresponds to SD1 shingle vegetation) is considered to be not sensitive to nitrogen deposition. The individual species specified in the conservation objectives are relatively nitrogen-loving species as inferred from their Ellenberg nutrient scores.

28. Therefore, we expect no ecological effects of nitrogen on the botanical composition within individual communities. However, it is possible that extent may be altered (see Task 4).

Task 4 Provide an opinion on the potential for effect on the perennial vegetation of stony banks qualifying feature as a whole with reference to the conservation objectives for the qualifying feature.

29. The conservation objectives for the site in the Core Management Plan specify that the target of <5% grass cover is used solely to identify the boundary between the open shingle SD1 community and the *Festuca* dominated shingle communities (which are similar in character to maritime cliff grasslands).

30. While ecological impacts of nitrogen within communities have been widely studied, there have been almost no studies of changes in boundaries of adjacent communities due to nitrogen. This essentially amounts to competition between

communities. One study with potential relevance to this issue is work conducted on relative competition between heather *Calluna vulgaris* and bracken *Pteridium aquilinum* in upland grasslands. This study showed that the competitive balance between heather and bracken was complex, and was in part controlled by interacting effects of nitrogen and climate (Gordon 1999).

31. On the Cemlyn shingle bar it is possible that with increasing nitrogen *Festuca rubra* will expand in cover, thereby altering the boundary between the two adjacent communities, essentially expanding the shingle bank community similar to MC8 and MC9 to the detriment of the extent of the open shingle community SD1. However, at the deposition levels currently at the site, and with the projected increases in N deposition from the Project, we feel that this is unlikely. It is also probable that physical disturbance from wave action exerts a greater influence on the abundance of *F. rubra* than current or projected levels of nitrogen deposition.

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Athena SWAN Bronze Award

BANGOR
Centre for Ecology & Hydrology
Environment Centre Wales
Deiniol Road
Bangor
Gwynedd
LL57 2UW
United Kingdom
T: +44 (0)1248 374500
F: +44 (0)1248 362133

EDINBURGH
Centre for Ecology & Hydrology
Bush Estate
Penicuik
Midlothian
EH26 0QB
United Kingdom
T: +44 (0)131 4454343
F: +44 (0)131 4453943

LANCASTER
Centre for Ecology & Hydrology
Lancaster Environment Centre
Library Avenue
Bailrigg
Lancaster
LA1 4AP
United Kingdom
T: +44 (0)1524 595800
F: +44 (0)1524 61536

WALLINGFORD - Headquarters
Centre for Ecology & Hydrology
Maclean Building
Benson Lane
Crowmarsh Gifford
Wallingford
Oxfordshire
OX10 8BB
United Kingdom
T: +44 (0)1491 838800
F: +44 (0)1491 692424

enquiries@ceh.ac.uk
www.ceh.ac.uk

Appendix H HRA integrity matrices

H1 **Appendix H** contains the HRA integrity matrices for the Project (in its entirety) in accordance with the structure and format specified in PINS Advice Note 10. The Appendix is stuctured as follows:

- **Appendix H.1**: HRA integrity matrices for SACs and cSAC are titled **H1.1 to H1.22**.
- **Appendix H.2**: HRA integrity matrices for SPAs and pSPAs are titled **H2.1 to H2.23**.
- **Appendix H.3**: HRA integrity matrices for Ramsar sites are titled **H3.1 to H3.5**.

H2 Following the above HRA integrity matrices, **appendix H.4** contains a further series of integrity matrices which present the outcomes of the shadow Appropriate Assessment undertaken for the purposes of this Shadow HRA specifically for the activities subject to the Environmental Permit and Marine Licence applications. These integrity matrices are provided to assist NRW in undertaking its HRA of these applications (i.e. to enable the outcome of the Shadow HRA to be identified for each individual application in isolation from the wider and combined effects of the Project).

H3 The matrices in **appendix H.4** are designed to enable a direct reference to be made from the various Shadow HRA signposting documents prepared in support of the Environmental Permit and Marine Licence applications to the conclusions of the Shadow HRA.

H4 The effect on integrity of European Designated Sites of the activities covered by the Environmental Permit and Marine Licence applications with all other elements of the Project are presented in integrity matrices in **appendices H.1**, **H.2** and **H.3**.

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Planning Inspectorate

Advice Note 10

Habitats Regulations Assessment

Appendix H.1: Integrity Matrices for SACs and cSACs

STAGE 2: EFFECTS ON INTEGRITY

Likely significant effects have been identified for the following sites:

- Gogledd Môn Forol/North Anglesey Marine cSAC - Wales (UK0030398)
- Bae Cemlyn/Cemlyn Bay SAC - Wales (UK0030114)
- Glannau Ynys Gybi/Holy Island Coast SAC - Wales (UK0013046)
- Llyn Dinam SAC - Wales (UK0030186)
- Corsydd Môn/Anglesey Fens SAC - Wales (UK0012884)
- Afon Gwyrfai a Llyn Cwellyn SAC - Wales (UK0030046)
- Pen Llyn a'r Sarnau/Llyn Peninsula and the Sarnau SAC - Wales (UK0013117)
- Gorllewin Cymru Forol/West Wales Marine cSAC - Wales/England (UK0030397)
- Afon Eden–Cors Goch Trawsfynydd SAC - Wales (UK0030075)
- Afon Dyfrdwy a Llyn Tegid/River Dee and Bala Lake SAC Wales/England (UK0030252)
- Bae Ceredigion/Cardigan Bay SAC - Wales (UK0012712)
- Afon Teif/River Teifi SAC - Wales (UK0012670)
- Dynesfeydd Môr Hafren/Bristol Channel Approaches cSAC - Wales/England (UK0030396)
- Sir Benfro Foro /Pembrokeshire Marine SAC - Wales (UK0013116)

- North Channel cSAC - Northern Ireland (UK0030399)
- Murlough SAC – Northern Ireland (UK0016612)
- Strangford Lough SAC – Northern Ireland (UK0016618)
- The Maidens SAC - Northern Ireland (UK0030384)
- Rockabill to Dalkey SAC - Ireland (IE003000)
- Lambay Island SAC – Ireland (IE0000204)
- Slaney River Valley SAC – Ireland (IE0000781)
- Saltee Islands SAC – Ireland (IE0000707)

These sites have been subject to further assessment in order to establish if the NSIP could have an adverse effect on their integrity. Evidence for the conclusions reached on integrity is signposted within the footnotes to the matrices below.

Matrix Key

✓ **=** Adverse effect on integrity **cannot** be excluded

✕**=** Adverse effect on integrity **can** be excluded

C = construction

O = operation

D = decommissioning

Where effects are not relevant to a particular feature, or have been excluded at screening stage, the matrix cell has been greyed out (and an explanation is provided as to why the effect is not relevant).

HRA Integrity Matrix H1.1: Gogledd Môn Forol/North Anglesey Marine cSAC

Name of European site and designation: Gogledd Môn Forol/North Anglesey Marine cSAC																																
EU Code: UK0030398																																
Distance to NSIP: 0km																																
European site features	**Adverse effect on integrity**																															
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*
S1351 Harbour porpoise (Phocoena phocoena)	× a	× b	× c	× d	× e	× f	× g	× h	× c	× f	× f	× f	× f	× f	× f	× f	× f	× f	× f	× f	× f	× f	× f	× f	× i	× j	× f	× k	× l	× f	× m	× m	× m

Evidence supporting conclusions:

a. Section 8.5 item A1 (Underwater noise during marine construction works)

b. Section 8.5 item A4 (Underwater noise during operation)

c. Section 8.11 (Decommissioning)

d. Section 8.5 item B (Land take, including seabed or intertidal land)

e. Section 8.5 item B1 (Change and/or loss of habitat)

f. The Stage 1 Screening assessment concluded that Likely Significant Effects (LSE) could be excluded (HRA Screening Matrix F1.1) and, therefore, no adverse effect on integrity can be concluded.

g. Section 8.5 item C1 (Increase in suspended sediment input and change in chemical quality due to discharge from fluvial sources and sewage) and item C2 (Increase in suspended sediment concentration and contaminant re-mobilisation during dredging and disposal)

h. Section 8.5 item C3 (Discharge from the cooling water system)

i. Section 8.5 item D (Alteration of coastal processes and hydrodynamics)

j. Section 8.5 item D1 (Potential effect on habitat for prey species)

k. Section 8.5 item E1 (Vessel collision risk)

l. Section 8.5 item E2 (Impact of impingement and entrainment of prey species during operation)

m. Section 8.5 (In-combination for the Gogledd Môn Forol/North Anglesey Marine cSAC for harbour porpoise) items A – E

HRA Integrity Matrix H1.2: Bae Cemlyn/Cemlyn Bay SAC

Name of European site and designation: Bae Cemlyn/Cemlyn Bay SAC																																	
EU Code: UK0030114																																	
Distance to NSIP: 0.1km																																	
European site features	**Adverse effect on integrity**																																
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*
H1150 Coastal lagoons	**a**	**a**	**a**	**a**	**a**	**a**	**× b**	**× c**	**× d**	**× b**	**× c**	**a**	**× e**	**× f**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**× g**	**× h**	**a**	**× i**	**× j**	**a**	**a**	**a**	**a**	**× k**	**× k**	**× k**
H1220 Perennial vegetation of stony banks	**l**	**l**	**l**	**l**	**l**	**l**	**× m**	**× n**	**× o**	**× m**	**× n**	**l**	**× p**	**× p**	**l**	**l**	**l**	**l**	**l**	**l**	**l**	**× q**	**× r**	**l**	**× s**	**× t**	**l**	**l**	**l**	**l**	**× u**	**× u**	**× u**

Evidence supporting conclusions:

a. The Stage 1 Screening assessment concluded that LSE could be excluded (HRA Screening Matrix F1.2) and, therefore, no adverse effect on integrity can be concluded.

b. Section 7.4 item A1 (Increase in suspended sediment from drainage discharge, dewatering, sewage, capital dredging and disposal of dredged material), item A2 (Change in water chemistry) and item A3 (Change in surface and ground water flow - affecting salinity)

c. Section 7.4 item A4 (Change in salinity due to overtopping of the shingle ridge (Esgair Gemlyn)), item A5 (Potential for increase in suspended sediment) and item A6 (Thermal and chemical changes due to discharge from the cooling water system)

d. Section 7.10 (Decommissioning)

e. Section 7.4 item B1 (Change in groundwater recharge, availability and supply) and item B2 (Change in surface water flow in the Cemlyn catchment)

f. Section 7.4 item B3 (Change in groundwater recharge and availability and supply), item B4 (Change in surface water flow in the Cemlyn catchment) and item B5 (Change in flood risk in the Cemlyn catchment)

g. Section 7.4 item C1 (Construction dust (earthworks and material handling)) and item C2 (Construction plant, machinery and marine vessels emissions)

h. Section 7.4 item C3 (Combustion plant emissions)

i. Section 7.4 item D1 (Change in waves, tidal currents, bed shear stress and sediment regime and effect on Esgair Gemlyn) and item D2 (Potential for blockage of the outflow from Cemlyn lagoon due to sediment deposition during dredging activities)

j. Section 7.4 item D3 (Change in wave, tidal currents, bed shear stress and sediment regime and effect on Esgair Gemlyn) and D4 (‘Coastal squeeze’)

k. Section 7.5 (Assessment of potential effects (in-combination) on Bae Cemlyn/Cemlyn Bay SAC)

l. The Stage 1 Screening assessment concluded that LSE could be excluded (HRA Screening Matrix F1.2) and, therefore, no adverse effect on integrity can be concluded.

m. Section 7.4 item E1 (Increase in suspended sediment from drainage discharge, dewatering, sewage, capital dredging and disposal of dredged material)

n. Section 7.4 item E2 (Potential for increase in suspended sediment)

o. Section 7.10 (Decommissioning)

p. Section 7.4 item F1 (Change in groundwater recharge and availability and supply) and item F2 (Change in surface water flow in the Cemlyn catchment)

q. Section 7.4 item G1 (Construction dust (earthworks and material handling)), item G2 (Construction plant, machinery and marine vessels emissions)

r. Section 7.4 item G3 (Combustion plant emissions)

s. Section 7.4 item H1 (Increase in sediment deposition during dredging activities)

t. Section 7.4 item H2 (Change in wave, tidal currents, bed shear stress and sediment regime and effect on Esgair Gemlyn)

u. Section 7.5 (Assessment of potential effects (in-combination) on Bae Cemlyn / Cemlyn Bay SAC)

HRA Integrity Matrix H1.3: Glannau Ynys Gybi/Holy Island Coast SAC

Name of European site and designation: Glannau Ynys Gybi/Holy Island Coast SAC																																
EU Code: UK0013046																																
Distance to NSIP: 2.2km																																
European site features	**Adverse effect on integrity**																															
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
H1230 Vegetated sea cliffs of the Atlantic and Baltic coasts	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**×b**	**×c**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**×d**	**×d**	**a**
H4010 Northern Atlantic wet heaths with Erica tetralix	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**×b**	**×c**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**×d**	**×d**	**a**

H4030 European dry heaths	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**×** **b**	**×** **c**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**×** **d**	**×** **d**	**a**

Evidence supporting conclusions:

a. The Stage 1 Screening assessment concluded that LSE could be excluded (HRA Screening Matrix F1.3) and, therefore, no adverse effect on integrity can be concluded.

b. Section 7.7 item C1 (Construction plant, machinery and marine vessels emissions)

c. Section 7.7 item C2 (Combustion plant emissions)

d. Section 7.8 (Assessment of potential effects (in-combination) for other SACs / Ramsar site)

HRA Integrity Matrix H1.4: Llyn Dinam SAC

Name of European site and designation: Llyn Dinam SAC																															
EU Code: UK0030186																															
Distance to NSIP: 1km																															
European site features	**Adverse effect on integrity**																														
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
H3150 Natural eutrophic lakes with Magnopotamion or Hydrocharition-type vegetation	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**× b**	**× c**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**× d**	**× d**	**a**

Evidence supporting conclusions:

a. The Stage 1 Screening assessment concluded that LSE could be excluded (HRA Screening Matrix F1.4) and, therefore, no adverse effect on integrity can be concluded.

b. Section 7.7 item C1 (Construction plant, machinery and marine vessels emissions)

c. Section 7.7 item C2 (Combustion plant emissions)

d. Section 7.8 (Assessment of potential effects (in-combination) for other SACs / Ramsar site)

HRA Integrity Matrix H1.5: Corsydd Môn/Anglesey Fens SAC

Name of European site and designation: Corsydd Môn/Anglesey Fens SAC																																
EU Code: UK0012884																																
Distance to NSIP: 13.4.0km																																
European site features	**Adverse effect on integrity**																															
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
H4010 Northern Atlantic wet heaths with Erica tetralix	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**× b**	**a**	**a**	**× c**	**× d**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**× e**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**× f**	**× f**	**a**
H6410 Molinia meadows on calcareous, peaty or	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**× b**	**a**	**a**	**× c**	**× d**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**× e**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**× f**	**× f**	**a**

clayey-silt-laden soils																																
H7210 Calcareous fens with Cladium mariscus and species of the Caricion davallianae	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**× b**	**a**	**a**	**× c**	**× d**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**× e**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**× f**	**× f**	**a**
H7230 Alkaline fens	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**× b**	**a**	**a**	**× c**	**× d**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**× e**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**× f**	**× f**	**a**
H3140 Hard oligo-mesotrophic waters with benthic vegetation of Chara spp.	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**× b**	**a**	**a**	**× c**	**× d**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**× e**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**× f**	**× f**	**a**
S1044 Southern damselfly (Coenagrion mercuriale)	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**× b**	**a**	**a**	**× c**	**× d**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**× e**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**× f**	**× f**	**a**
S1065 Marsh fritillary butterfly (Euphydryas aurinia)	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**× b**	**a**	**a**	**× c**	**× d**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**× e**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**× f**	**× f**	**a**

S1013 Geyer`s whorl snail (Vertigo geyeri)	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**× b**	**a**	**a**	**× c**	**× d**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**× e**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**× f**	**× f**	**a**

Evidence supporting conclusions:

a. The Stage 1 Screening assessment concluded that LSE could be excluded (HRA Screening Matrix F1.5) and, therefore, no adverse effect on integrity can be concluded.

b. Section 7.7 item A1 (Potential increase in suspended sediment in the drainage network during the creation of new and improvement of existing fen habitat at Cae Canol-dydd and Cors Gwawr)

c. Section 7.7 item B1 (Potential effect on surface waters and groundwater during the creation of new and improvement of existing fen habitat at Cae Canol-dydd and Cors Gwawr)

d. Section 7.7 item B2 (Potential effect on surface waters and groundwater post-creation of new and the improvement of existing fen habitat at Cae Canol-dydd and Cors Gwawr)

e. Section 7.7 item C2 (Combustion plant emissions)

f. Section 7.8 (Assessment of potential effects (in-combination) for other SACs / Ramsar site)

HRA Integrity Matrix H1.6: Afon Gwyrfai a Llyn Cwellyn SAC

Name of European site and designation: Afon Gwyrfai a Llyn Cwellyn SAC																																		
EU Code: UK0030046																																		
Distance to NSIP: 22.5km																																		
European site features	**Adverse effect on integrity**																																	
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
S1106 Atlantic salmon (Salmo salar)	**× a**	**× b**	**× c**	**× d**	**× d**	**× d**	**× e**	**× f**	**× c**	**× d**	**× d**	**× d**	**× d**	**× d**	**× d**	**× d**	**× d**	**× d**	**× d**	**× d**	**× d**	**× d**	**× d**	**× d**	**× g**	**× g**	**× d**	**× h**	**× i**	**× d**	**× j**	**× j**	**× j**

Evidence supporting conclusions:

a. Section 9.4 item A1 (Underwater noise during marine construction works) and A2 (Light spill during marine construction)

b. Section 9.4 item A3 (Underwater noise due to vessel movements)

c. Section 9.6.6 (Decommissioning)

d. The Stage 1 Screening assessment concluded that LSE could be excluded (HRA Screening Matrix F1.6) and, therefore, no adverse effect on integrity can be concluded.

e. Section 9.4 item B1 (Suspended sediment input to the marine environment (drainage, dewatering, sewage discharge and capital dredging), item B2 (Increase in suspended sediment concentration during disposal of dredged material) and item B3 (Changes in water chemistry)

f. Section 9.4 item B4 (Operational water discharge from the cooling water system)

g. Section 9.4 item C1 (Alteration in coastal processes and hydrodynamic effect)

h. Section 9.4 item D (Physical interaction between species and Project infrastructure)

i. Section 9.4 item D1 (Entrapment within the cooling water system)

j. Section 9.5 (Assessment of potential effects (in-combination))

HRA Integrity Matrix H1.7: Pen Llyn a'r Sarnau/ Llyn Peninsula and the Sarnau SAC

Name of European site and designation: Pen Llyn a'r Sarnau/ Llyn Peninsula and the Sarnau SAC																																
EU Code: UK0013117																																
Distance to NSIP: 48.0km																																
European site features	**Adverse effect on integrity**																															
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
S1349 Bottlenose dolphin (Tursiops truncatus)	**× a**	**× b**	**× c**	**× d**	**× e**	**× f**	**× g**	**× h**	**× c**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× i**	**× j**	**× f**	**× k**	**× l**	**× f**	**× m**	**× m**	**× m**
S1364 Grey seal (Halichoerus grypus)	**× n**	**× o**	**× p**	**× q**	**× r**	**× s**	**× t**	**× u**	**× p**	**× s**	**× s**	**× s**	**× s**	**× s**	**× s**	**× s**	**× s**	**× s**	**× s**	**× s**	**× s**	**× s**	**× s**	**× s**	**× v**	**× w**	**× s**	**× y**	**× z**	**× s**	**× aa**	**× aa**	**× aa**

Evidence supporting conclusions:

a. Section 8.7 item A1 (Underwater noise during marine construction works)

b. Section 8.7 item A4 (Underwater noise during operation)

c. Section 8.11 (Decommissioning)

d. Section 8.7 item B1 (Change and/or loss of habitat)

e. Section 8.7 item B1 (Change and/or loss of habitat)

f. The Stage 1 Screening assessment concluded that Likely Significant Effects (LSE) could be excluded (HRA Screening Matrix F1.7) and, therefore, no adverse effect on integrity can be concluded.

g. Section 8.7 item C1 (Increase in suspended sediment input and change in chemical quality due to discharge from fluvial sources and sewage) and item C2 (Increase in suspended sediment concentration and contaminant re-mobilisation during dredging and disposal)

h. Section 8.7 item C3 (Discharge from the cooling water system)

i. Section 8.7 item D1 (Potential effect on habitat for prey species)

j. Section 8.7 item D1 (Potential effect on habitat for prey species)

k. Section 8.7 item E1 (Vessel collision risk)

l. Section 8.7 item E2 (Impact of impingement and entrainment of prey species during operation)

m. Section 8.7 (In-combination for the Pen Llyn a'r Sarnau / Llŷn Peninsula and the Sarnau SAC and Bae Ceredigion / Cardigan Bay SAC for bottlenose dolphin) items A – E

n. Section 8.8 item A1 (Underwater noise during marine construction works), item A2 (Airborne noise during construction) and item A3 (Visual stimuli)

o. Section 8.8 item A4 (Underwater noise during operation)

p. Section 8.11 (Decommissioning)

q. Section 8.8 item B1 (Land take, including seabed or intertidal land)

r. Section 8.8 item B1 (Change and/or loss of habitat)

s. The Stage 1 Screening assessment concluded that LSE could be excluded (HRA Screening Matrix F1.7) and, therefore, no adverse effect on integrity can be concluded.

t. Section 8.8 item C1 (Increase in suspended sediment input and change in chemical quality due to discharge from fluvial sources and sewage) and item C2 (Increase in suspended sediment concentration and contaminant re-mobilisation during dredging and disposal)

u. Section 8.8 item C3 (Discharge from the cooling water system)

v. Section 8.8 item D1 (Potential effect on habitat for prey species)

w. Section 8.8 item D1 (Potential effect on habitat for prey species)

y. Section 8.8 item E1 (Vessel collision risk)

z. Section 8.8 item E2 (Impact of impingement of prey species during operation)

aa. Section 8.8 (In-combination assessment for Pen Llyn a'r Sarnau / Llŷn Peninsula and the Sarnau SAC and other grey seal SACs) items A – E

HRA Integrity Matrix H1.8: Gorllewin Cymru Forol/West Wales Marine cSAC

Name of European site and designation: Gorllewin Cymru Forol/West Wales Marine cSAC																																
EU Code: UK0030397																																
Distance to NSIP: 48.8km																																
European site features	**Adverse effect on integrity**																															
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
S1351 Harbour porpoise (Phocoena phocoena)	**× a**	**× b**	**× c**	**× d**	**× e**	**× f**	**× g**	**× h**	**× c**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× i**	**× j**	**× f**	**× k**	**× l**	**× f**	**× m**	**× m**	**× m**

Evidence supporting conclusions:

a. Section 8.6 Assessment (alone) and supporting information in Section 8.5 item A1 (Underwater noise during marine construction works)

b. Section 8.6 Assessment (alone) and supporting information in Section 8.5 item A4 (Underwater noise during operation)

c. Section 8.11 (Decommissioning)

d. Section 8.6 Assessment (alone) and supporting information in Section 8.5 item B (Land take, including seabed or intertidal land)

e. Section 8.6 Assessment (alone) and supporting information in Section 8.5 item B1 (Change and/or loss of habitat)

f. The Stage 1 Screening assessment concluded that Likely Significant Effects (LSE) could be excluded (HRA Screening Matrix F1.8) and, therefore, no adverse effect on integrity can be concluded.

g. Section 8.6 Assessment (alone) and supporting information in Section 8.5 item C1 (Increase in suspended sediment input and change in chemical quality due to discharge from fluvial sources and sewage) and item C2 (Increase in suspended sediment concentration and contaminant re-mobilisation during dredging and disposal)

h. Section 8.6 Assessment (alone) and supporting information in Section 8.5 item C3 (Discharge from the cooling water system)

i. Section 8.6 Assessment (alone) and supporting information in Section 8.5 item D (Alteration of coastal processes and hydrodynamics)

j. Section 8.6 Assessment (alone) and supporting information in Section 8.5 item D1 (Potential effect on habitat for prey species)

k. Section 8.6 Assessment (alone) and supporting information in Section 8.5 item E1 (Vessel collision risk)

l. Section 8.6 Assessment (alone) and supporting information in Section 8.5 item E2 (Impact of impingement and entrainment of prey species during operation)

m. Section 8.6 (In-combination assessment for the Gorllewin Cymru Forol/West Wales Marine cSAC, Dynesfeydd Môr Hafren/Bristol Channel Approaches cSAC and North Channel cSAC for harbour porpoise) items A-E

HRA Integrity Matrix H1.9: Afon Eden–Cors Goch Trawsfynydd SAC

Name of European site and designation: Afon Eden–Cors Goch Trawsfynydd SAC																																
EU Code: UK0030075																																
Distance to NSIP: 137km																																
European site features	**Adverse effect on integrity**																															
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
S1106 Atlantic salmon (Salmo salar)	**× a**	**× b**	**× c**	**× d**	**× d**	**× d**	**× e**	**× f**	**× c**	**× d**	**× d**	**× d**	**× d**	**× d**	**× d**	**× d**	**× d**	**× d**	**× d**	**× d**	**× d**	**× d**	**× d**	**× d**	**× g**	**× g**	**× d**	**× h**	**× i**	**× d**	**× j**	**× j**	**× j**
S1029 Freshwater pearl mussel (Margarit-ifera margarit-ifera)	**× a**	**× b**	**× c**	**× d**	**× d**	**× d**	**× e**	**× f**	**× c**	**× d**	**× d**	**× d**	**× d**	**× d**	**× d**	**× d**	**× d**	**× d**	**× d**	**× d**	**× d**	**× d**	**× d**	**× d**	**× g**	**× g**	**× d**	**× h**	**× i**	**× d**	**× j**	**× j**	**× j**

Evidence supporting conclusions:

a. Section 9.4 item A1 (Underwater noise during marine construction works) and A2 (Light spill during marine construction)

b. Section 9.4 item A3 (Underwater noise due to vessel movements)

c. Section 9.6.6 (Decommissioning)

d. The Stage 1 Screening assessment concluded that LSE could be excluded (HRA Screening Matrix F1.6) and, therefore, no adverse effect on integrity can be concluded.

e. Section 9.4 item B1 (Suspended sediment input to the marine environment (drainage, dewatering, sewage discharge and capital dredging), item B2 (Increase in suspended sediment concentration during disposal of dredged material) and item B3 (Changes in water chemistry)

f. Section 9.4 item B4 (Operational water discharge from the cooling water system)

g. Section 9.4 item C1 (Alteration in coastal processes and hydrodynamic effect)

h. Section 9.4 item D (Physical interaction between species and Project infrastructure) and Section 9.4 item E (Interactions between species – freshwater pearl mussel)

i. Section 9.4 item D1 (Entrapment within the cooling water system) and Section 9.4 item E (Interactions between species – freshwater pearl mussel)

j. Section 9.5 (Assessment of potential effects (in-combination))

HRA Integrity Matrix H1.10: Afon Dyfrdwy a Llyn Tegid / River Dee and Bala Lake SAC

Name of European site and designation: Afon Dyfrdwy a Llyn Tegid / River Dee and Bala Lake SAC																																		
EU Code: UK0030252																																			
Distance to NSIP: 102km																																			
European site features	**Adverse effect on integrity**																																		
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
S1106 Atlantic salmon (Salmo salar)	**× a**	**× b**	**× c**	**× d**	**× d**	**× d**	**× e**	**× f**	**× c**	**× d**	**× d**	**× d**	**× d**	**× d**	**× d**	**× d**	**× d**	**× d**	**× d**	**× d**	**× d**	**× d**	**× d**	**× d**	**× g**	**× g**	**× d**	**× h**	**× i**	**× d**	**× j**	**× j**	**× j**

Evidence supporting conclusions:

a. Section 9.4 item A1 (Underwater noise during marine construction works) and A2 (Light spill during marine construction)

b. Section 9.4 item A3 (Underwater noise due to vessel movements)

c. Section 9.6.6 (Decommissioning)

d. The Stage 1 Screening assessment concluded that LSE could be excluded (HRA Screening Matrix F1.6) and, therefore, no adverse effect on integrity can be concluded.

e. Section 9.4 item B1 (Suspended sediment input to the marine environment (drainage, dewatering, sewage discharge and capital dredging), item B2 (Increase in suspended sediment concentration during disposal of dredged material) and item B3 (Changes in water chemistry)

f. Section 9.4 item B4 (Operational water discharge from the cooling water system)

g. Section 9.4 item C1 (Alteration in coastal processes and hydrodynamic effect)

h. Section 9.4 item D (Physical interaction between species and Project infrastructure)

i. Section 9.4 item D1 (Entrapment within the cooling water system)

j. Section 9.5 (Assessment of potential effects (in-combination))

HRA Integrity Matrix H1.11: Bae Ceredigion/Cardigan Bay SAC

Name of European site and designation: Bae Ceredigion / Cardigan Bay SAC																																
EU Code: UK0012712																																
Distance to NSIP: 109.0km																																
European site features	**Adverse effect on integrity**																															
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
S1349 Bottlenose dolphin (Tursiops truncatus)	**× a**	**× b**	**× c**	**× d**	**× e**	**× f**	**× g**	**× h**	**× c**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× i**	**× j**	**× f**	**× k**	**× l**	**× f**	**× m**	**× m**	**× m**
S1364 Grey seal (Halichoerus grypus)	**× n**	**× o**	**× p**	**× q**	**× r**	**× s**	**× t**	**× u**	**× p**	**× s**	**× s**	**× s**	**× s**	**× s**	**× s**	**× s**	**× s**	**× s**	**× s**	**× s**	**× s**	**× s**	**× s**	**× s**	**× v**	**× w**	**× s**	**× y**	**× z**	**× s**	**× aa**	**× aa**	**× aa**

Evidence supporting conclusions:

a. Section 8.7 item A1 (Underwater noise during marine construction works)

b. Section 8.7 item A4 (Underwater noise during operation)

c. Section 8.11 (Decommissioning)

d. Section 8.7 item B1 (Change and/or loss of habitat)

e. Section 8.7 item B1 (Change and/or loss of habitat)

f. The Stage 1 Screening assessment concluded that Likely Significant Effects (LSE) could be excluded (HRA Screening Matrix F1.11) and, therefore, no adverse effect on integrity can be concluded.

g. Section 8.7 item C1 (Increase in suspended sediment input and change in chemical quality due to discharge from fluvial sources and sewage) and item C2 (Increase in suspended sediment concentration and contaminant re-mobilisation during dredging and disposal)

h. Section 8.7 item C3 (Discharge from the cooling water system)

i. Section 8.7 item D1 (Potential effect on habitat for prey species)

j. Section 8.7 item D1 (Potential effect on habitat for prey species)

k. Section 8.7 item E1 (Vessel collision risk)

l. Section 8.7 item E2 (Impact of impingement and entrainment of prey species during operation)

m. Section 8.7 (In-combination for the Pen Llyn a'r Sarnau / Llŷn Peninsula and the Sarnau SAC and Bae Ceredigion / Cardigan Bay SAC for bottlenose dolphin) items A – E

n. Section 8.9 and supporting information in Section 8.8 item A1 (Underwater noise during marine construction works), item A2 (Airborne noise during construction) and item A3 (Visual stimuli)

o. Section 8.9 and supporting information in Section 8.8 item A4 (Underwater noise during operation)

p. Section 8.11 (Decommissioning)

q. Section 8.9 and supporting information in Section 8.8 item B1 (Change and/or loss of habitat)

r. Section 8.9 and supporting information in Section 8.8 item B1 (Change and/or loss of habitat)

s. The Stage 1 Screening assessment concluded that LSE could be excluded (HRA Screening Matrix F1.11) and, therefore, no adverse effect on integrity can be concluded.

t. Section 8.9 and supporting information in Section 8.8 item C1 (Increase in suspended sediment input and change in chemical quality due to discharge from fluvial sources and sewage) and item C2 (Increase in suspended sediment concentration and contaminant re-mobilisation during dredging and disposal)

u. Section 8.9 and supporting information in Section 8.8 item C3 (Discharge from the cooling water system)

v. Section 8.9 and supporting information in Section 8.8 item D1 (Potential effect on habitat for prey species)

w. Section 8.9 and supporting information in Section 8.8 item D1 (Potential effect on habitat for prey species)

y. Section 8.9 and supporting information in Section 8.8 item E1 (Vessel collision risk)

z. Section 8.9 and supporting information in Section 8.8 item E2 (Impact of impingement and entrainment of prey species during operation)

aa. Section 8.9 (In-combination) and supporting information in Section 8.8 (In-combination assessment for Pen Llyn a'r Sarnau / Llŷn Peninsula and the Sarnau SAC and other grey seal SACs) items A – E

HRA Integrity Matrix H1.12: Afon Teifi/River Teifi SAC

Name of European site and designation: Afon Teifi/River Teifi SAC																																		
EU Code: UK0012670																																		
Distance to NSIP: 155km																																		
European site features	**Adverse effect on integrity**																																	
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and groundwater hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
S1106 Atlantic salmon (Salmo salar)	**× a**	**× b**	**× c**	**× d**	**× d**	**× d**	**× e**	**× f**	**× c**	**× d**	**× d**	**× d**	**× d**	**× d**	**× d**	**× d**	**× d**	**× d**	**× d**	**× d**	**× d**	**× d**	**× d**	**× d**	**× g**	**× g**	**× d**	**× h**	**× i**	**× d**	**× j**	**× j**	**× j**

Evidence supporting conclusions:

a. Section 9.4 item A1 (Underwater noise during marine construction works) and A2 (Light spill during marine construction)

b. Section 9.4 item A3 (Underwater noise due to vessel movements)

c. Section 9.6.6 (Decommissioning)

d. The Stage 1 Screening assessment concluded that LSE could be excluded (HRA Screening Matrix F1.6) and, therefore, no adverse effect on integrity can be concluded.

e. Section 9.4 item B1 (Suspended sediment input to the marine environment (drainage, dewatering, sewage discharge and capital dredging), item B2 (Increase in suspended sediment concentration during disposal of dredged material) and item B3 (Changes in water chemistry)

f. Section 9.4 item B4 (Operational water discharge from the cooling water system)

g. Section 9.4 item C1 (Alteration in coastal processes and hydrodynamic effect)

h. Section 9.4 item D (Physical interaction between species and Project infrastructure)

i. Section 9.4 item D1 (Entrapment within the cooling water system)

j. Section 9.5 (Assessment of potential effects (in-combination))

HRA Integrity Matrix H1.13: Dynesfeydd Môr Hafren/Bristol Channel Approaches cSAC

Name of European site and designation: Dynesfeydd Môr Hafren/Bristol Channel Approaches cSAC																																					
EU Code: UK0030396																																							
Distance to NSIP: 185.2km																																						
European site features	**Adverse effect on integrity**																																					
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
S1351 Harbour porpoise (Phocoena phocoena)	**× a**	**× b**	**× c**	**× d**	**× e**	**× f**	**× g**	**× h**	**× c**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× i**	**× j**	**× f**	**× k**	**× l**	**× f**	**× m**	**× m**	**× m**

Evidence supporting conclusions:

a. Section 8.6 Assessment (alone) and supporting information in Section 8.5 item A1 (Underwater noise during marine construction works)

b. Section 8.6 Assessment (alone) and supporting information in Section 8.5 item A4 (Underwater noise during operation)

c. Section 8.11 (Decommissioning)

d. Section 8.6 Assessment (alone) and supporting information in Section 8.5 item B (Land take, including seabed or intertidal land)

e. Section 8.6 Assessment (alone) and supporting information in Section 8.5 item B1 (Change and/or loss of habitat)

f. The Stage 1 Screening assessment concluded that Likely Significant Effects (LSE) could be excluded (HRA Screening Matrix F1.13) and, therefore, no adverse effect on integrity can be concluded.

g. Section 8.6 Assessment (alone) and supporting information in Section 8.5 item C1 (Increase in suspended sediment input and change in chemical quality due to discharge from fluvial sources and sewage) and item C2 (Increase in suspended sediment concentration and contaminant re-mobilisation during dredging and disposal)

h. Section 8.6 Assessment (alone) and supporting information in Section 8.5 item C3 (Discharge from the cooling water system)

i. Section 8.6 Assessment (alone) and supporting information in Section 8.5 item D (Alteration of coastal processes and hydrodynamics)

j. Section 8.6 Assessment (alone) and supporting information in Section 8.5 item D1 (Potential effect on habitat for prey species)

k. Section 8.6 Assessment (alone) and supporting information in Section 8.5 item E1 (Vessel collision risk)

l. Section 8.6 Assessment (alone) and supporting information in Section 8.5 item E2 (Impact of impingement and entrainment of prey species during operation)

m. Section 8.6 (In-combination assessment for the Gorllewin Cymru Forol/West Wales Marine cSAC, Dynesfeydd Môr Hafren/Bristol Channel Approaches cSAC and North Channel cSAC for harbour porpoise) items A-E

HRA Integrity Matrix H1.14: Sir Benfro Forol/Pembrokeshire Marine SAC

Name of European site and designation: Sir Benfro Forol/Pembrokeshire Marine SAC																																			
EU Code: UK0013116																																			
Distance to NSIP: 186.5km																																			
European site features	**Adverse effect on integrity**																																		
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	*C*	*O*	*D*
S1364 Grey seal (Halichoerus grypus)	**× a**	**× b**	**× c**	**× d**	**× e**	**× f**	**× g**	**× h**	**× c**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× i**	**× j**	**× f**	**× k**	**× l**	**× f**	**×**	**×**	**×**

Evidence supporting conclusions:

a. Section 8.9 and supporting information in Section 8.8 item A1 (Underwater noise during marine construction works), item A2 (Airborne noise during construction) and item A3 (Visual stimuli)

b. Section 8.9 and supporting information in Section 8.8 item A4 (Underwater noise during operation)

c. Section 8.11 (Decommissioning)

d. Section 8.9 and supporting information in Section 8.8 item B1 (Change and/or loss of habitat)

e. Section 8.9 and supporting information in Section 8.8 item B1 (Change and/or loss of habitat)

f. The Stage 1 Screening assessment concluded that LSE could be excluded (HRA Screening Matrix F1.14) and, therefore, no adverse effect on integrity can be concluded.

g. Section 8.9 and supporting information in Section 8.8 item C1 (Increase in suspended sediment input and change in chemical quality due to discharge from fluvial sources and sewage) and item C2 (Increase in suspended sediment concentration and contaminant re-mobilisation during dredging and disposal)

h. Section 8.9 and supporting information in Section 8.8 item C3 (Discharge from the cooling water system)

i. Section 8.9 and supporting information in Section 8.8 item D1 (Potential effect on habitat for prey species)

j. Section 8.9 and supporting information in Section 8.8 item D1 (Potential effect on habitat for prey species)

k. Section 8.9 and supporting information in Section 8.8 item E1 (Vessel collision risk)

l. Section 8.9 and supporting information in Section 8.8 item E2 (Impact of impingement and entrainment of prey species during operation)

m. Section 8.9 (In-combination) and supporting information in Section 8.8 (In-combination assessment for Pen Llyn a'r Sarnau/Llŷn Peninsula and the Sarnau SAC and other grey seal SACs) items A – E

HRA Integrity Matrix H1.15: North Channel cSAC

Name of European site and designation: North Channel cSAC																																
EU Code: UK0030399																																
Distance to NSIP: 94.5km																																
European site features	**Adverse effect on integrity**																															
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
S1351 Harbour porpoise (Phocoena phocoena)	**× a**	**× b**	**× c**	**× d**	**× e**	**× f**	**× g**	**× h**	**× c**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× i**	**× j**	**× f**	**× k**	**× l**	**× f**	**× m**	**× m**	**× m**

Evidence supporting conclusions:

a. Section 8.6 Assessment (alone) and supporting information in Section 8.5 item A1 (Underwater noise during marine construction works)

b. Section 8.6 Assessment (alone) and supporting information in Section 8.5 item A4 (Underwater noise during operation)

c. Section 8.11 (Decommissioning)

d. Section 8.6 Assessment (alone) and supporting information in Section 8.5 item B (Land take, including seabed or intertidal land)

e. Section 8.6 Assessment (alone) and supporting information in Section 8.5 item B1 (Change and/or loss of habitat)

f. The Stage 1 Screening assessment concluded that Likely Significant Effects (LSE) could be excluded (HRA Screening Matrix F1.15) and, therefore, no adverse effect on integrity can be concluded.

g. Section 8.6 Assessment (alone) and supporting information in Section 8.5 item C1 (Increase in suspended sediment input and change in chemical quality due to discharge from fluvial sources and sewage) and item C2 (Increase in suspended sediment concentration and contaminant re-mobilisation during dredging and disposal)

h. Section 8.6 Assessment (alone) and supporting information in Section 8.5 item C3 (Discharge from the cooling water system)

i. Section 8.6 Assessment (alone) and supporting information in Section 8.5 item D (Alteration of coastal processes and hydrodynamics)

j. Section 8.6 Assessment (alone) and supporting information in Section 8.5 item D1 (Potential effect on habitat for prey species)

k. Section 8.6 Assessment (alone) and supporting information in Section 8.5 item E1 (Vessel collision risk)

l. Section 8.6 Assessment (alone) and supporting information in Section 8.5 item E2 (Impact of impingement and entrainment of prey species during operation)

m. Section 8.6 (In-combination assessment for the Gorllewin Cymru Forol/West Wales Marine cSAC, Dynesfeydd Môr Hafren/Bristol Channel Approaches cSAC and North Channel cSAC for harbour porpoise) items A-E

HRA Integrity Matrix H1.16: Murlough SAC

Name of European site and designation: Murlough SAC																																	
EU Code: UK0016612																																	
Distance to NSIP: 117.9km																																	
European site features	**Adverse effect on integrity**																																
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
S1365 Harbour seal (Phoca vitulina)	**× a**	**× b**	**× c**	**× d**	**× e**	**× f**	**× g**	**× h**	**× c**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× i**	**× j**	**× f**	**× k**	**× l**	**× f**	**× m**	**× m**	**× m**

Evidence supporting conclusions:

a. Section 8.10 item A1 (Underwater noise during marine construction works), item A2 (Airborne noise during construction) and item A3 (Visual stimuli)

b. Section 8.10 item A4 (Underwater noise during operation)

c. Section 8.11 (Decommissioning)

d. Section 8.10 item B (Land take, including seabed or intertidal land)

e. Section 8.10 item B1 (Change and/or loss of habitat)

f. The Stage 1 Screening assessment concluded that LSE could be excluded (HRA Screening Matrix F1.16) and, therefore, no adverse effect on integrity can be concluded.

g. Section 8.10 item C1 (Increase in suspended sediment input and change in chemical quality due to discharge from fluvial sources and sewage) and item C2 (Increase in suspended sediment concentration and contaminant re-mobilisation during dredging and disposal)

h. Section 8.10 item C3 (Discharge from the cooling water system)

i. Section 8.10 item D1 (Potential effect on habitat for prey species)

j. Section 8.10 item D1 (Potential effect on habitat for prey species)

k. Section 8.10 item E1 (Vessel collision risk)

l. Section 8.10 item E2 (Impact of impingement and entrainment of prey species during operation)

m. Section 8.10 (In-combination assessment for harbour seal SACs) items A – E

HRA Integrity Matrix H1.17: Strangford Lough SAC

Name of European site and designation: Strangford Lough SAC																																
EU Code: UK0016618																																
Distance to NSIP: 119.8km																																
European site features	**Adverse effect on integrity**																															
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
S1365 Harbour seal (Phoca vitulina)	**× a**	**× b**	**× c**	**× d**	**× e**	**× f**	**× g**	**× h**	**× c**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× i**	**× j**	**× f**	**× k**	**× l**	**× f**	**× m**	**× m**	**× m**

Evidence supporting conclusions:

a. Section 8.10 item A1 (Underwater noise during marine construction works), item A2 (Airborne noise during construction) and item A3 (Visual stimuli)

b. Section 8.10 item A4 (Underwater noise during operation)

c. Section 8.11 (Decommissioning)

d. Section 8.10 item B1 (Change and/or loss of habitat)

e. Section 8.10 item B1 (Change and/or loss of habitat)

f. The Stage 1 Screening assessment concluded that LSE could be excluded (HRA Screening Matrix F1.17) and, therefore, no adverse effect on integrity can be concluded.

g. Section 8.10 item C1 (Increase in suspended sediment input and change in chemical quality due to discharge from fluvial sources and sewage) and item C2 (Increase in suspended sediment concentration and contaminant re-mobilisation during dredging and disposal)

h. Section 8.10 item C3 (Discharge from the cooling water system)

i. Section 8.10 item D1 (Potential effect on habitat for prey species)

j. Section 8.10 item D1 (Potential effect on habitat for prey species)

k. Section 8.10 item E1 (Vessel collision risk)

l. Section 8.10 item E2 (Impact of impingement and entrainment of prey species during operation)

m. Section 8.10 (In-combination assessment for harbour seal SACs) items A – E

HRA Integrity Matrix H1.18: The Maidens SAC

Name of European site and designation: The Maidens SAC																																	
EU Code: UK0030384																																	
Distance to NSIP: 180.4km																																	
European site features	**Adverse effect on integrity**																																
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
S1364 Grey seal (Halichoerus grypus)	**× a**	**× b**	**× c**	**× d**	**× e**	**× f**	**× g**	**× h**	**× c**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× i**	**× j**	**× f**	**× k**	**× l**	**× f**	**× m**	**× m**	**× m**

Evidence supporting conclusions:

a. Section 8.9 and supporting information in Section 8.8 item A1 (Underwater noise during marine construction works), item A2 (Airborne noise during construction) and item A3 (Visual stimuli)

b. Section 8.9 and supporting information in Section 8.8 item A4 (Underwater noise during operation)

c. Section 8.11 (Decommissioning)

d. Section 8.9 and supporting information in Section 8.8 item B1 (Change and/or loss of habitat)

e. Section 8.9 and supporting information in Section 8.8 item B1 (Change and/or loss of habitat)

f. The Stage 1 Screening assessment concluded that LSE could be excluded (HRA Screening Matrix F1.18) and, therefore, no adverse effect on integrity can be concluded.

g. Section 8.9 and supporting information in Section 8.8 item C1 (Increase in suspended sediment input and change in chemical quality due to discharge from fluvial sources and sewage) and item C2 (Increase in suspended sediment concentration and contaminant re-mobilisation during dredging and disposal)

h. Section 8.9 and supporting information in Section 8.8 item C3 (Discharge from the cooling water system)

i. Section 8.9 and supporting information in Section 8.8 item D1 (Potential effect on habitat for prey species)

j. Section 8.9 and supporting information in Section 8.8 item D1 (Potential effect on habitat for prey species)

k. Section 8.9 and supporting information in Section 8.8 item E1 (Vessel collision risk)

l. Section 8.9 and supporting information in Section 8.8 item E2 (Impact of impingement and entrainment of prey species during operation)

m. Section 8.9 (In-combination) and supporting information in Section 8.8 (In-combination assessment for Pen Llyn a'r Sarnau/Llŷn Peninsula and the Sarnau SAC and other grey seal SACs) items A – E

HRA Integrity Matrix H1.19: Rockabill to Dalkey SAC

Name of European site and designation: Rockabill to Dalkey SAC																																	
EU Code: IE003000																																	
Distance to NSIP: 97.4km																																	
European site features	**Adverse effect on integrity**																																
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
S1351 Harbour porpoise (Phocoena phocoena)	**× a**	**× b**	**× c**	**× d**	**× e**	**× f**	**× g**	**× h**	**× c**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× i**	**× j**	**× f**	**× k**	**× l**	**× f**	**× m**	**× m**	**× m**

Evidence supporting conclusions:

a. Section 8.6 Assessment (alone) and supporting information in Section 8.5 item A1 (Underwater noise during marine construction works)

b. Section 8.6 Assessment (alone) and supporting information in Section 8.5 item A4 (Underwater noise during operation)

c. Section 8.11 (Decommissioning)

d. Section 8.6 Assessment (alone) and supporting information in Section 8.5 item B (Land take, including seabed or intertidal land)

e. Section 8.6 Assessment (alone) and supporting information in Section 8.5 item B1 (Change and/or loss of habitat)

f. The Stage 1 Screening assessment concluded that Likely Significant Effects (LSE) could be excluded (HRA Screening Matrix F1.19) and, therefore, no adverse effect on integrity can be concluded.

g. Section 8.6 Assessment (alone) and supporting information in Section 8.5 item C1 (Increase in suspended sediment input and change in chemical quality due to discharge from fluvial sources and sewage) and item C2 (Increase in suspended sediment concentration and contaminant re-mobilisation during dredging and disposal)

h. Section 8.6 Assessment (alone) and supporting information in Section 8.5 item C3 (Discharge from the cooling water system)

i. Section 8.6 Assessment (alone) and supporting information in Section 8.5 item D (Alteration of coastal processes and hydrodynamics)

j. Section 8.6 Assessment (alone) and supporting information in Section 8.5 item D1 (Potential effect on habitat for prey species)

k. Section 8.6 Assessment (alone) and supporting information in Section 8.5 item E1 (Vessel collision risk)

l. Section 8.6 Assessment (alone) and supporting information in Section 8.5 item E2 (Impact of impingement and entrainment of prey species during operation)

m. Section 8.6 (Conclusions for the Rockabill to Dalkey Island SAC (Ireland) for harbour porpoise: In-combination)

HRA Integrity Matrix H1.20: Lambay Island SAC

Name of European site and designation: Lambay Island SAC																																
EU Code: IE0000204																																
Distance to NSIP: 98.8km																																
European site features	**Adverse effect on integrity**																															
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
S1364 Grey seal (Halichoerus grypus)	**× a**	**× b**	**× c**	**× d**	**× e**	**× f**	**× g**	**× h**	**× c**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× i**	**× j**	**× f**	**× k**	**× l**	**× f**	**× m**	**× m**	**× m**
S1365 Harbour seal (Phoca vitulina)	**× n**	**× o**	**× p**	**× q**	**× r**	**× s**	**× t**	**× u**	**× p**	**× s**	**× s**	**× s**	**× s**	**× s**	**× s**	**× s**	**× s**	**× s**	**× s**	**× s**	**× s**	**× s**	**× s**	**× s**	**× v**	**× w**	**× s**	**× y**	**× z**	**× s**	**× aa**	**× aa**	**× aa**

Evidence supporting conclusions:

a. Section 8.9 and supporting information in Section 8.8 item A1 (Underwater noise during marine construction works), item A2 (Airborne noise during construction) and item A3 (Visual stimuli)

b. Section 8.9 and supporting information in Section 8.8 item A4 (Underwater noise during operation)

c. Section 8.11 (Decommissioning)

d. Section 8.9 and supporting information in Section 8.8 item B1 (Change and/or loss of habitat)

e. Section 8.9 and supporting information in Section 8.8 item B1 (Change and/or loss of habitat)

f. The Stage 1 Screening assessment concluded that LSE could be excluded (HRA Screening Matrix F1.20) and, therefore, no adverse effect on integrity can be concluded.

g. Section 8.9 and supporting information in Section 8.8 item C1 (Increase in suspended sediment input and change in chemical quality due to discharge from fluvial sources and sewage) and item C2 (Increase in suspended sediment concentration and contaminant re-mobilisation during dredging and disposal)

h. Section 8.9 and supporting information in Section 8.8 item C3 (Discharge from the cooling water system)

i. Section 8.9 and supporting information in Section 8.8 item D1 (Potential effect on habitat for prey species)

j. Section 8.9 and supporting information in Section 8.8 item D1 (Potential effect on habitat for prey species)

k. Section 8.9 and supporting information in Section 8.8 item E1 (Vessel collision risk)

l. Section 8.9 and supporting information in Section 8.8 item E2 (Impact of impingement and entrainment of prey species during operation)

m. Section 8.9 (In-combination) and supporting information in Section 8.8 (In-combination assessment for Pen Llyn a'r Sarnau / Llŷn Peninsula and the Sarnau SAC and other grey seal SACs) items A – E

n. Section 8.10 item A1 (Underwater noise during marine construction works), item A2 (Airborne noise during construction) and item A3 (Visual stimuli)

o. Section 8.10 item A4 (Underwater noise during operation)

p. Section 8.11 (Decommissioning)

q. Section 8.10 item B1 (Change and/or loss of habitat)

r. Section 8.10 item B1 (Change and/or loss of habitat)

s. The Stage 1 Screening assessment concluded that LSE could be excluded (HRA Screening Matrix F1.21) and, therefore, no adverse effect on integrity can be concluded.

t. Section 8.10 item C1 (Increase in suspended sediment input and change in chemical quality due to discharge from fluvial sources and sewage) and item C2 (Increase in suspended sediment concentration and contaminant re-mobilisation during dredging and disposal)

u. Section 8.10 item C3 (Discharge from the cooling water system)

v. Section 8.10 item D1 (Potential effect on habitat for prey species)

w. Section 8.10 item D1 (Potential effect on habitat for prey species)

y. Section 8.10 item E1 (Vessel collision risk)

z. Section 8.10 item E2 (Impact of impingement and entrainment of prey species during operation)

aa. Section 8.10 (In-combination assessment for harbour seal SACs) items A – E

HRA Integrity Matrix H1.21: Slaney River Valley SAC

Name of European site and designation: Slaney River Valley SAC																																	
EU Code: IE0000781																																	
Distance to NSIP: 141.2km																																	
European site features	**Adverse effect on integrity**																																
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
S1365 Harbour seal (Phoca vitulina)	**× a**	**× b**	**× c**	**× d**	**× e**	**× f**	**× g**	**× h**	**× c**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× i**	**× j**	**× f**	**× k**	**× l**	**× f**	**× m**	**× m**	**× m**

Evidence supporting conclusions:

a. Section 8.10 item A1 (Underwater noise during marine construction works), item A2 (Airborne noise during construction) and item A3 (Visual stimuli)

b. Section 8.10 item A4 (Underwater noise during operation)

c. Section 8.11 (Decommissioning)

d. Section 8.10 item B1 (Change and/or loss of habitat)

e. Section 8.10 item B1 (Change and/or loss of habitat)

f. The Stage 1 Screening assessment concluded that LSE could be excluded (HRA Screening Matrix F1.21) and, therefore, no adverse effect on integrity can be concluded.

g. Section 8.10 item C1 (Increase in suspended sediment input and change in chemical quality due to discharge from fluvial sources and sewage) and item C2 (Increase in suspended sediment concentration and contaminant re-mobilisation during dredging and disposal)

h. Section 8.10 item C3 (Discharge from the cooling water system)

i. Section 8.10 item D1 (Potential effect on habitat for prey species)

j. Section 8.10 item D1 (Potential effect on habitat for prey species)

k. Section 8.10 item E1 (Vessel collision risk)

l. Section 8.10 item E2 (Impact of impingement and entrainment of prey species during operation)

m. Section 8.10 (In-combination assessment for harbour seal SACs) items A – E

HRA Integrity Matrix H1.22: Saltee Islands SAC

Name of European site and designation: Saltee Islands SAC																																		
EU Code: IE0000707																																		
Distance to NSIP: 191.0km																																		
European site features	**Adverse effect on integrity**																																	
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
S1364 Grey seal (Halichoerus grypus)	**× a**	**× b**	**× c**	**× d**	**× e**	**× f**	**× g**	**× h**	**× c**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× f**	**× i**	**× j**	**× f**	**× k**	**× l**	**× f**	**× m**	**× m**	**× m**

Evidence supporting conclusions:

a. Section 8.9 and supporting information in Section 8.8 item A1 (Underwater noise during marine construction works), item A2 (Airborne noise during construction) and item A3 (Visual stimuli)

b. Section 8.9 and supporting information in Section 8.8 item A4 (Underwater noise during operation)

c. Section 8.11 (Decommissioning)

d. Section 8.9 and supporting information in Section 8.8 item B1 (Change and/or loss of habitat)

e. Section 8.9 and supporting information in Section 8.8 item B1 (Change and/or loss of habitat)

f. The Stage 1 Screening assessment concluded that LSE could be excluded (HRA Screening Matrix F1.22) and, therefore, no adverse effect on integrity can be concluded.

g. Section 8.9 and supporting information in Section 8.8 item C1 (Increase in suspended sediment input and change in chemical quality due to discharge from fluvial sources and sewage) and item C2 (Increase in suspended sediment concentration and contaminant re-mobilisation during dredging and disposal)

h. Section 8.9 and supporting information in Section 8.8 item C3 (Discharge from the cooling water system)

i. Section 8.9 and supporting information in Section 8.8 item D1 (Potential effect on habitat for prey species)

j. Section 8.9 and supporting information in Section 8.8 item D1 (Potential effect on habitat for prey species)

k. Section 8.9 and supporting information in Section 8.8 item E1 (Vessel collision risk)

l. Section 8.9 and supporting information in Section 8.8 item E2 (Impact of impingement and entrainment of prey species during operation)

m. Section 8.9 (In-combination) and supporting information in Section 8.8 (In-combination assessment for Pen Llyn a'r Sarnau/Llŷn Peninsula and the Sarnau SAC and other grey seal SACs) items A – E

Planning Inspectorate

Advice Note 10

Habitats Regulations Assessment

Appendix H.2: Integrity Matrices for SPAs and pSPAs

STAGE 2: EFFECTS ON INTEGRITY

Likely significant effects have been identified for the following sites:

- Morwenoliaid Ynys Môn/Anglesey Terns SPA - Wales (UK9013061)
- Glannau Ynys Gybi/Holy Island Coast SPA - Wales (UK9013101)
- Ynys Seiriol/Puffin Island SPA - Wales (UK9020285)
- Glannau Aberdaron and Ynys Enlli/Aberdaron Coast Bardsey Island SPA - Wales (UK9013121)
- Mynydd Cilan, Trwyn y Wylfa ac Ynysoedd Sant Tudwal/Mynydd Cilan, Trwyn y Wylfa and the St. Tudwal Islands SPA - Wales (UK9020282)
- Aber Afen Dyfrdwy/Dee Estuary SPA – Wales/England (UK9013011)
- Sgomer, Gogwm a moroedd Benfro/Skomer, Skokholm and the seas off Pembrokeshire SPA - Wales (UK9014051)
- Grassholm SPA - Wales (UK9014041)
- Mersey Narrows and North Wirral Foreshore SPA – England (UK9020287)
- Ribble and Alt Estuaries SPA – England (UK9005103)
- Morecambe Bay SPA – England (UK9005081)
- Morecambe Bay and Duddon Estuary SPA – England (UK9005081)
- Bowland Fells SPA - England (UK9005151)
- Lambay Island SPA - Ireland (004069)

- Ireland's Eye SPA - Ireland (004117)
- East Coast Marine pSPA – Northern Ireland (UK9020320)
- Copeland Islands SPA - Ireland (UK9020291)
- Saltee Islands SPA - Ireland (004002)
- Rathlin Island SPA – Northern Ireland (UK9020011)
- Horn Head to Fanad Head SPA – Ireland (004194)
- West Donegal Coast SPA – Ireland (004150)
- Tory Island SPA – Ireland (004073)
- Ailsa Craig SPA – Scotland (UK9003091)

These sites have been subject to further assessment in order to establish if the NSIP could have an adverse effect on their integrity. Evidence for the conclusions reached on integrity is signposted within the footnotes to the matrices below.

Matrix Key

✓ **=** Adverse effect on integrity **cannot** be excluded

✗**=** Adverse effect on integrity **can** be excluded

C = construction

O = operation

D = decommissioning

Where effects are not relevant to a particular feature, or have been excluded at screening stage, the matrix cell has been greyed out (and an explanation is provided as to why the effect is not relevant).

HRA Integrity Matrix H2.1: Morwenoliaid Ynys Môn/Anglesey Terns SPA

Name of European site and designation: Morwenoliaid Ynys Môn / Anglesey Terns SPA																																
EU Code: UK9013061																																
Distance to NSIP: 0km																																
European site features	**Adverse effect on integrity**																															
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
A191 Sandwich tern (Sterna sandvicensis)	**× a**	**× b**	**× c**	**× d**	**× e**	**f**	**× g**	**× h**	**× c**	**f**	**f**	**f**	**× i**	**× i**	**f**	**f**	**f**	**f**	**f**	**f**	**f**	**× j**	**× j**	**f**	**× k**	**× k**	**f**	**× l**	**× m**	**f**	**× n**	**× n**	**× n**
A193 Common tern (Sterna hirundo)	**× o**	**× p**	**× q**	**× r**	**× s**	**t**	**× u**	**× u**	**× q**	**t**	**t**	**t**	**× v**	**× v**	**t**	**t**	**t**	**t**	**t**	**t**	**t**	**× w**	**× w**	**t**	**× y**	**× y**	**t**	**× z**	**× aa**	**t**	**× bb**	**× bb**	**× bb**
A194 Arctic tern (Sterna paradisaea)	**× cc**	**× dd**	**× ee**	**× ff**	**× gg**	**hh**	**× ii**	**× ii**	**× ee**	**hh**	**hh**	**hh**	**× jj**	**× jj**	**hh**	**hh**	**hh**	**hh**	**hh**	**hh**	**hh**	**× kk**	**× kk**	**hh**	**× ll**	**× ll**	**hh**	**× mm**	**× nn**	**hh**	**× oo**	**× oo**	**× oo**

A192 Roseate tern (Sterna dougallii)	**× pp**	**× pp**	**× pp**	**× pp**	**× pp**	**qq**	**× pp**	**× pp**	**× pp**	**qq**	**qq**	**qq**	**× pp**	**× pp**	**qq**	**qq**	**qq**	**qq**	**qq**	**qq**	**qq**	**× pp**	**× pp**	**qq**	**× pp**	**× pp**	**qq**	**× pp**	**× pp**	**qq**	**× rr**	**× rr**	**× rr**

Evidence supporting conclusions:

a. Section 10.3 Sandwich tern (*Sterna sandvicensis*) (alone) item A1 (Disturbance at the breeding colony) and item A2 (Disturbance in the marine environment)

b. Section 10.3 Sandwich tern (*Sterna sandvicensis*) (alone) item A3 (Noise and visual disturbance during operation)

c. Section 10.3 (Decommissioning)

d. Section 10.3 Sandwich tern (*Sterna sandvicensis*) (alone) item B1 (Change and/or loss of habitat)

e. Section 10.3 Sandwich tern (*Sterna sandvicensis*) (alone) item B2 (Change and/or loss of habitat)

f. The Stage 1 Screening assessment concluded that LSE could be excluded (HRA Screening Matrix F2.1) and, therefore, no adverse effect on integrity can be concluded.

g. Section 10.3 Sandwich tern (*Sterna sandvicensis*) (alone) item C1 (Suspended sediment input to the marine environment (drainage, dewatering, sewage discharge and capital dredging)),and item C2 (Increase in suspended sediment concentration during disposal of dredged material and item C3 (Chemical discharges from the drainage system)

h. Section 10.3 Sandwich tern (*Sterna sandvicensis*) (alone) item C4 (Water discharge from the cooling water system)

i. Section 10.3 Sandwich tern (*Sterna sandvicensis*) (alone) item D (Changes in surface and groundwater hydrology)

j. Section 10.3 Sandwich tern (*Sterna sandvicensis*) (alone) item E (Changes in air quality)

k. Section 10.3 Sandwich tern (*Sterna sandvicensis*) (alone) item F (Alteration of coastal processes and hydrodynamics)

l. Section 10.3 Sandwich tern (*Sterna sandvicensis*) (alone) item G (Physical interaction between species and Project infrastructure)

m. Section 10.3 Sandwich tern (*Sterna sandvicensis*) (alone) item G1 (Entrapment of prey)

n. Section 10.3 (Sandwich tern (*Sterna sandvicensis*) (in-combination))

o. Section 10.3 Common tern (*Sterna hirundo*) (alone) item A1 (Disturbance at the breeding colony) and item A2 (Disturbance in the marine environment)

p. Section 10.3 Common tern (*Sterna hirundo*) (alone) item A3 (Noise and visual disturbance during operation)

q. Section 10.3 (Decommissioning)

r. Section 10.3 Common tern (*Sterna hirundo*) (alone) item B1 (Change and/or loss of habitat)

s. Section 10.3 Common tern (*Sterna hirundo*) (alone) item B2 (Change and/or loss of habitat)

t. The Stage 1 Screening assessment concluded that LSE could be excluded (HRA Screening Matrix F2.1) and, therefore, no adverse effect on integrity can be concluded.

u. Section 10.3 Common tern (*Sterna hirundo*) (alone) item C (Changes in marine water quality)

v. Section 10.3 Common tern (*Sterna hirundo*) (alone) item D (Changes in surface and groundwater hydrology)

w. Section 10.3 Common tern (*Sterna hirundo*) (alone) item E (Changes in air quality)

y. Section 10.3 Common tern (*Sterna hirundo*) (alone) item F (Alteration of coastal processes and hydrodynamics)

z. Section 10.3 Common tern (*Sterna hirundo*) (alone) item G (Physical interaction between species and Project infrastructure)

aa. Section 10.3 Common tern (*Sterna hirundo*) (alone) item G1 (Entrapment of prey)

bb. Section 10.3 Common tern (*Sterna hirundo*) (in-combination))

cc. Section 10.3 Arctic tern (*Sterna paradisaea*) (alone) item A1 (Disturbance at the breeding colony) and item A2 (Disturbance in the marine environment)

dd. Section 10.3 Arctic tern (*Sterna paradisaea*) (alone) item A3 (Noise and visual disturbance during operation)

ee. Section 10.3 (Decommissioning)

ff. Section 10.3 Arctic tern (*Sterna paradisaea*) (alone) item B1 (Change and/or loss of habitat)

gg. Section 10.3 Arctic tern (*Sterna paradisaea*) (alone) item B2 (Change and/or loss of habitat)

hh. The Stage 1 Screening assessment concluded that LSE could be excluded (HRA Screening Matrix F2.1) and, therefore, no adverse effect on integrity can be concluded.

ii. Section 10.3 Arctic tern (*Sterna paradisaea*) (alone) item C (Changes in marine water quality)

jj. Section 10.3 Arctic tern (*Sterna paradisaea*) (alone) item D (Changes in surface and groundwater hydrology)

kk. Section 10.3 Arctic tern (*Sterna paradisaea*) (alone) item E (Changes in air quality)

ll. Section 10.3 Arctic tern (*Sterna paradisaea*) (alone) item F (Alteration of coastal processes and hydrodynamics)

mm. Section 10.3 Arctic tern (*Sterna paradisaea*) (alone) item G (Physical interaction between species and Project infrastructure)

nn. Section 10.3 Arctic tern (*Sterna paradisaea*) (alone) item G1 (Entrapment of prey)

oo. Section 10.3 Arctic tern (*Sterna paradisaea*) (in-combination))

pp. Section 10.3 Roseate tern (*Sterna dougallii*) (alone)

qq. The Stage 1 Screening assessment concluded that LSE could be excluded (HRA Screening Matrix F2.1) and, therefore, no adverse effect on integrity can be concluded.

rr. Section 10.3 Roseate tern (*Sterna dougallii*) (in-combination))

HRA Integrity Matrix H2.2: Glannau Ynys Gybi/Holy Island Coast SPA

Name of European site and designation: Glannau Ynys Gybi/Holy Island Coast SPA																																		
EU Code: UK9013101																																		
Distance to NSIP: 13.1km																																		
European site features	**Adverse effect on integrity**																																	
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
A346 Red billed chough (Pyrrhocorax pyrrhocorax)	**× a**	**× a**	**× a**	**× a**	**× a**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**× a**	**× a**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**× c**	**× c**	**× c**

Evidence supporting conclusions:

a. Section 10.6 Appropriate Assessment for SPAs screened in for chough populations

b. The Stage 1 Screening assessment concluded that LSE could be excluded (HRA Screening Matrix F2.2) and, therefore, no adverse effect on integrity can be concluded.

c. Section 10.6 Chough (*Pyrrhocorax pyrrhocorax*) (in-combination)

HRA Integrity Matrix H2.3: Ynys Seiriol/Puffin Island SPA

Name of European site and designation: Ynys Seiriol/Puffin Island SPA																																
EU Code: UK9020285																																
Distance to NSIP: 30.2km																																
European site features	**Adverse effect on integrity**																															
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
A017 Great cormorant (Phalacrocorax carbo)	**× a**	**× a**	**× a**	**× a**	**× a**	**b**	**× a**	**× a**	**× a**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**× a**	**× a**	**b**	**× a**	**× a**	**b**	**× c**	**× c**	**× c**

Evidence supporting conclusions:

a. Section 10.4 Appropriate Assessment for other SPAs, pSPAs and Ramsar (bird feature) sites screened in on the basis of breeding seabird populations

b. The Stage 1 Screening assessment concluded that LSE could be excluded (HRA Screening Matrix F2.3) and, therefore, no adverse effect on integrity can be concluded.

c. Section 10.4 Appropriate Assessment for other SPAs, pSPAs and Ramsar (bird feature) sites screened in on the basis of breeding seabird populations

HRA Integrity Matrix H2.4: Glannau Aberdaron and Ynys Enlli / Aberdaron Coast Bardsey Island SPA

Name of European site and designation: Glannau Aberdaron and Ynys Enlli / Aberdaron Coast Bardsey Island SPA																																	
EU Code: UK9013121																																	
Distance to NSIP: 63.3km																																	
European site features	**Adverse effect on integrity**																																
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
A013 Manx shearwater (Puffinus puffinus)	**× a**	**× a**	**× a**	**× a**	**× a**	**b**	**× a**	**× a**	**× a**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**× a**	**× a**	**b**	**× a**	**× a**	**b**	**× c**	**× c**	**× c**

A346 Red billed chough (Pyrrh ocorax pyrrh ocorax)	**× d**	**× d**	**× d**	**× d**	**× d**	**e**	**e**	**e**	**e**	**e**	**e**	**e**	**e**	**e**	**e**	**e**	**e**	**e**	**e**	**e**	**e**	**× d**	**× d**	**e**	**e**	**e**	**e**	**e**	**e**	**e**	**× f**	**× f**	**× f**

Evidence supporting conclusions:

a. Section 10.4 Appropriate Assessment for Glannau Aberdaron and Ynys Enlli/Aberdaron Coast and Bardsey Island SPA

b. The Stage 1 Screening assessment concluded that LSE could be excluded (HRA Screening Matrix F2.4) and, therefore, no adverse effect on integrity can be concluded.

c. Section 10.4 Manx shearwater (*Puffinus puffinus*) (in-combination)

d. Section 10.6 Appropriate Assessment for SPAs screened in for chough populations

e. The Stage 1 Screening assessment concluded that LSE could be excluded (HRA Screening Matrix F2.4) and, therefore, no adverse effect on integrity can be concluded.

f. Section 10.6 Chough (*Pyrrhocorax pyrrhocorax*) (in-combination)

HRA Integrity Matrix H2.5: Mynydd Cilan, Trwyn y Wylfa ac Ynysoedd Sant Tudwal/Mynydd Cilan, Trwyn y Wylfa and the St. Tudwal Islands SPA

Name of European site and designation: Mynydd Cilan, Trwyn y Wylfa ac Ynysoedd Sant Tudwal/Mynydd Cilan, Trwyn y Wylfa and the St. Tudwal Islands SPA																																
EU Code: UK9020282																																
Distance to NSIP: 65.1km																																
European site features	**Adverse effect on integrity**																															
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
A346 Red billed chough (Pyrrhocorax pyrrhocorax)	**× a**	**× a**	**× a**	**× a**	**× a**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**× a**	**× a**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**× c**	**× c**	**× c**

Evidence supporting conclusions:

a. Section 10.6 Appropriate Assessment for SPAs screened in for chough populations

b. The Stage 1 Screening assessment concluded that LSE could be excluded (HRA Screening Matrix F2.5) and, therefore, no adverse effect on integrity can be concluded.

c. Section 10.6 Chough (*Pyrrhocorax pyrrhocorax*) (in-combination)

HRA Integrity Matrix H2.6: Aber Afen Dyfrdwy/Dee Estuary SPA

Name of European site and designation: Aber Afen Dyfrdwy/Dee Estuary SPA																																	
EU Code: UK9013011																																	
Distance to NSIP: 60.2km																																	
European site features	**Adverse effect on integrity**																																
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
A191 Sandwich tern (Sterna sandvicensis)	**× a**	**× a**	**× a**	**× a**	**× a**	**b**	**× a**	**× a**	**× a**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**× a**	**× a**	**b**	**× a**	**× a**	**b**	**× c**	**× c**	**× c**

Evidence supporting conclusions:

a. Section 10.5 Appropriate Assessment for SPAs and Ramsar sites screened in for passage seabird populations

b. The Stage 1 Screening assessment concluded that LSE could be excluded (HRA Screening Matrix F2.6) and, therefore, no adverse effect on integrity can be concluded.

c. Section 10.5 Appropriate Assessment for SPAs and Ramsar sites screened in for passage seabird populations

HRA Integrity Matrix H2.7: Sgomer, Gogwm a moroedd Benfro/Skomer, Skokholm and the seas off Pembrokeshire SPA

Name of European site and designation: Sgomer, Gogwm a moroedd Benfro/Skomer, Skokholm and the seas off Pembrokeshire SPA																																
EU Code: UK9014051																																
Distance to NSIP: 187.1km																																
European site features	**Adverse effect on integrity**																															
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
A013 Manx shearwater (Puffinus puffinus)	**× a**	**× a**	**× a**	**× a**	**× a**	**b**	**× a**	**× a**	**× a**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**× a**	**× a**	**b**	**× a**	**× a**	**b**	**× c**	**× c**	**× c**
Seabird assemblage of international importance	**× a**	**× a**	**× a**	**× a**	**× a**	**b**	**× a**	**× a**	**× a**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**× a**	**× a**	**b**	**× a**	**× a**	**b**	**× c**	**× c**	**× c**

Evidence supporting conclusions:

a. Section 10.4 Appropriate Assessment for other SPAs, pSPAs and Ramsar (bird feature) sites screened in on the basis of breeding seabird populations

b. The Stage 1 Screening assessment concluded that LSE could be excluded (HRA Screening Matrix F2.7) and, therefore, no adverse effect on integrity can be concluded.

c. Section 10.4 Appropriate Assessment for other SPAs, pSPAs and Ramsar (bird feature) sites screened in on the basis of breeding seabird populations

HRA Integrity Matrix H2.8: Grassholm SPA

Name of European site and designation: Grassholm SPA																																
EU Code: UK9014041																																
Distance to NSIP: 194.8km																																
European site features	**Adverse effect on integrity**																															
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
A016 Gannet (Morus bassanus)	**× a**	**× a**	**× a**	**× a**	**× a**	**b**	**× a**	**× a**	**× a**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**× a**	**× a**	**b**	**× a**	**× a**	**b**	**× c**	**× c**	**× c**

Evidence supporting conclusions:

a. Section 10.4 Appropriate Assessment for other SPAs, pSPAs and Ramsar (bird feature) sites screened in on the basis of breeding seabird populations

b. The Stage 1 Screening assessment concluded that LSE could be excluded (HRA Screening Matrix F2.8) and, therefore, no adverse effect on integrity can be concluded.

c. Section 10.4 Appropriate Assessment for other SPAs, pSPAs and Ramsar (bird feature) sites screened in on the basis of breeding seabird populations

HRA Integrity Matrix H2.9: Mersey Narrows and North Wirral Foreshore SPA

Name of European site and designation: Mersey Narrows and North Wirral Foreshore SPA																																
EU Code: UK9020287																																
Distance to NSIP: 82km																																
European site features	**Adverse effect on integrity**																															
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
A193 Common tern (Sterna hirundo)	**× a**	**× a**	**× a**	**× a**	**× a**	**b**	**× a**	**× a**	**× a**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**× a**	**× a**	**b**	**× a**	**× a**	**b**	**× c**	**× c**	**× c**

Evidence supporting conclusions:

a. Section 10.5 Appropriate Assessment for SPAs and Ramsar sites screened in for passage seabird populations

b. The Stage 1 Screening assessment concluded that LSE could be excluded (HRA Screening Matrix F2.9) and, therefore, no adverse effect on integrity can be concluded.

c. Section 10.5 Appropriate Assessment for SPAs and Ramsar sites screened in for passage seabird populations

HRA Integrity Matrix H2.10: Ribble and Alt Estuaries SPA

Name of European site and designation: Ribble and Alt Estuaries SPA																																
EU Code: UK9005103																																
Distance to NSIP: 87.6km																																
European site features	**Adverse effect on integrity**																															
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
A183 Lesser black-backed gull (Larus fuscus)	**× a**	**× a**	**× a**	**× a**	**× a**	**b**	**× a**	**× a**	**× a**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**× a**	**× a**	**b**	**× a**	**× a**	**b**	**× c**	**× c**	**× c**

Evidence supporting conclusions:

a. Section 10.4 Appropriate Assessment for other SPAs, pSPAs and Ramsar (bird feature) sites screened in on the basis of breeding seabird populations

b. The Stage 1 Screening assessment concluded that LSE could be excluded (HRA Screening Matrix F2.10) and, therefore, no adverse effect on integrity can be concluded.

c. Section 10.4 Appropriate Assessment for other SPAs, pSPAs and Ramsar (bird feature) sites screened in on the basis of breeding seabird populations

HRA Integrity Matrix H2.11: Morecambe Bay SPA

Name of European site and designation: Morecambe Bay SPA																																	
EU Code: UK9005081																																	
Distance to NSIP: 106.1km																																	
European site features	**Adverse effect on integrity**																																
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
SBA Seabird assemblage of international importance (lesser black-backed gull)	**× a**	**× a**	**× a**	**× a**	**× a**	**b**	**× a**	**× a**	**× a**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**× a**	**× a**	**b**	**× a**	**× a**	**b**	**× c**	**× c**	**× c**

Evidence supporting conclusions:

a. Section 10.4 Appropriate Assessment for other SPAs, pSPAs and Ramsar (bird feature) sites screened in on the basis of breeding seabird populations

b. The Stage 1 Screening assessment concluded that LSE could be excluded (HRA Screening Matrix F2.11) and, therefore, no adverse effect on integrity can be concluded.

c. Section 10.4 Appropriate Assessment for other SPAs, pSPAs and Ramsar (bird feature) sites screened in on the basis of breeding seabird populations

HRA Integrity Matrix H2.12: Morecambe Bay and Duddon Estuary SPA

Name of European site and designation: Morecambe Bay and Duddon Estuary SPA																																
EU Code: UK9005081																																
Distance to NSIP: 106.1km																																
European site features	**Adverse effect on integrity**																															
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
SBA Seabird assemblage of international importance (lesser black-backed gull)	**× a**	**× a**	**× a**	**× a**	**× a**	**b**	**× a**	**× a**	**× a**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**× a**	**× a**	**b**	**× a**	**× a**	**b**	**× c**	**× c**	**× c**

A183 Lesser black-backed gull (Larus fuscus)	**× a**	**× a**	**× a**	**× a**	**× a**	**b**	**× a**	**× a**	**× a**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**× a**	**× a**	**b**	**× a**	**× a**	**b**	**× c**	**× c**	**× c**

Evidence supporting conclusions:

a. Section 10.4 Appropriate Assessment for other SPAs, pSPAs and Ramsar (bird feature) sites screened in on the basis of breeding seabird populations

b. The Stage 1 Screening assessment concluded that LSE could be excluded (HRA Screening Matrix F2.12) and, therefore, no adverse effect on integrity can be concluded.

c. Section 10.4 Appropriate Assessment for other SPAs, pSPAs and Ramsar (bird feature) sites screened in on the basis of breeding seabird populations

HRA Integrity Matrix G2.13: Bowland Fells SPA

Name of European site and designation: Bowland Fells SPA																																
EU Code: UK9005151																																
Distance to NSIP: 128.8km																																
European site features	**Adverse effect on integrity**																															
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
A183 Lesser black-backed gull (Larus fuscus)	**× a**	**× a**	**× a**	**× a**	**× a**	**b**	**× a**	**× a**	**× a**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**× a**	**× a**	**b**	**× a**	**× a**	**b**	**× c**	**× c**	**× c**

Evidence supporting conclusions:

a. Section 10.4 Appropriate Assessment for other SPAs, pSPAs and Ramsar (bird feature) sites screened in on the basis of breeding seabird populations

b. The Stage 1 Screening assessment concluded that LSE could be excluded (HRA Screening Matrix F2.13) and, therefore, no adverse effect on integrity can be concluded.

c. Section 10.4 Appropriate Assessment for other SPAs, pSPAs and Ramsar (bird feature) sites screened in on the basis of breeding seabird populations

HRA Integrity Matrix H2.14: Lambay Island SPA

Name of European site and designation: Lambay Island SPA																																
EU Code: 004069																																
Distance to NSIP: 99km																																
European site features	**Adverse effect on integrity**																															
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
A009 Fulmar (Fulmarus glacialis)	**× a**	**× a**	**× a**	**× a**	**× a**	**b**	**× a**	**× a**	**× a**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**× a**	**× a**	**b**	**× a**	**× a**	**b**	**× c**	**× c**	**× c**
A183 Lesser black-backed gull (Larus fuscus)	**× a**	**× a**	**× a**	**× a**	**× a**	**b**	**× a**	**× a**	**× a**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**× a**	**× a**	**b**	**× a**	**× a**	**b**	**× c**	**× c**	**× c**
A199 Guillemot (Uria aalge)	**× a**	**× a**	**× a**	**× a**	**× a**	**b**	**× a**	**× a**	**× a**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**× a**	**× a**	**b**	**× a**	**× a**	**b**	**× c**	**× c**	**× c**

A204 Puffin (Fratercula arctica)	**× a**	**× a**	**× a**	**× a**	**× a**	**b**	**× a**	**× a**	**× a**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**× a**	**× a**	**b**	**× a**	**× a**	**b**	**× c**	**× c**	**× c**

Evidence supporting conclusions:

a. Section 10.4 Appropriate Assessment for other SPAs, pSPAs and Ramsar (bird feature) sites screened in on the basis of breeding seabird populations

b. The Stage 1 Screening assessment concluded that LSE could be excluded (HRA Screening Matrix F2.14) and, therefore, no adverse effect on integrity can be concluded.

c. Section 10.4 Appropriate Assessment for other SPAs, pSPAs and Ramsar (bird feature) sites screened in on the basis of breeding seabird populations

HRA Integrity Matrix H2.15: Ireland's Eye SPA

Name of European site and designation: Ireland's Eye SPA																																		
EU Code: 004117																																		
Distance to NSIP: 102.8km																																		
European site features	**Adverse effect on integrity**																																	
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
A199 Guillemot (Uria aalge)	**× a**	**× a**	**× a**	**× a**	**× a**	**b**	**× a**	**× a**	**× a**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**× a**	**× a**	**b**	**× a**	**× a**	**b**	**× c**	**× c**	**× c**

Evidence supporting conclusions:

a. Section 10.4 Appropriate Assessment for other SPAs, pSPAs and Ramsar (bird feature) sites screened in on the basis of breeding seabird populations

b. The Stage 1 Screening assessment concluded that LSE could be excluded (HRA Screening Matrix F2.15) and, therefore, no adverse effect on integrity can be concluded.

c. Section 10.4 Appropriate Assessment for other SPAs, pSPAs and Ramsar (bird feature) sites screened in on the basis of breeding seabird populations

HRA Integrity Matrix H2.16: East Coast Marine pSPA

Name of European site and designation: East Coast Marine pSPA																																
EU Code: UK9020320																																
Distance to NSIP: 117km																																
European site features	**Adverse effect on integrity**																															
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
A013 Manx shearwater (Puffinus puffinus)	**× a**	**× a**	**× a**	**× a**	**× a**	**b**	**× a**	**× a**	**× a**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**× a**	**× a**	**b**	**× a**	**× a**	**b**	**× c**	**× c**	**× c**

Evidence supporting conclusions:

a. Section 10.4 Appropriate Assessment for other SPAs, pSPAs and Ramsar (bird feature) sites screened in on the basis of breeding seabird populations

b. The Stage 1 Screening assessment concluded that LSE could be excluded (HRA Screening Matrix F2.16) and, therefore, no adverse effect on integrity can be concluded.

c. Section 10.4 Appropriate Assessment for other SPAs, pSPAs and Ramsar (bird feature) sites screened in on the basis of breeding seabird populations

HRA Integrity Matrix H2.17: Copeland Islands SPA

Name of European site and designation: Copeland Islands SPA																																
EU Code: UK9020291																																
Distance to NSIP: 154.4km																																
European site features	**Adverse effect on integrity**																															
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
A013 Manx shearwater (Puffinus puffinus)	**× a**	**× a**	**× a**	**× a**	**× a**	**b**	**× a**	**× a**	**× a**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**× a**	**× a**	**b**	**× a**	**× a**	**b**	**× c**	**× c**	**× c**

Evidence supporting conclusions:

a. Section 10.4 Appropriate Assessment for other SPAs, pSPAs and Ramsar (bird feature) sites screened in on the basis of breeding seabird populations

b. The Stage 1 Screening assessment concluded that LSE could be excluded (HRA Screening Matrix F2.17) and, therefore, no adverse effect on integrity can be concluded.

c. Section 10.4 Appropriate Assessment for other SPAs, pSPAs and Ramsar (bird feature) sites screened in on the basis of breeding seabird populations

HRA Integrity Matrix H2.18: Saltee Islands SPA

Name of European site and designation: Saltee Islands SPA																																
EU Code: 004002																																
Distance to NSIP: 197.5km																																
European site features	**Adverse effect on integrity**																															
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
A009 Fulmar (Fulmarus glacialis)	**× a**	**× a**	**× a**	**× a**	**× a**	**b**	**× a**	**× a**	**× a**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**× a**	**× a**	**b**	**× a**	**× a**	**b**	**× c**	**× c**	**× c**
A016 Gannet (Morus bassanus)	**× a**	**× a**	**× a**	**× a**	**× a**	**b**	**× a**	**× a**	**× a**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**× a**	**× a**	**b**	**× a**	**× a**	**b**	**× c**	**× c**	**× c**

Evidence supporting conclusions:

a. Section 10.4 Appropriate Assessment for other SPAs, pSPAs and Ramsar (bird feature) sites screened in on the basis of breeding seabird populations

b. The Stage 1 Screening assessment concluded that LSE could be excluded (HRA Screening Matrix F2.18) and, therefore, no adverse effect on integrity can be concluded.

c. Section 10.4 Appropriate Assessment for other SPAs, pSPAs and Ramsar (bird feature) sites screened in on the basis of breeding seabird populations

HRA Integrity Matrix H2.19: Rathlin Island SPA

Name of European site and designation: Rathlin Island SPA																																
EU Code: UK9020011																																
Distance to NSIP: 186km																																
European site features	**Adverse effect on integrity**																															
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
SBA Seabird assemblage of international importance (including Fulmar (Fulmarus glacialis))	**× a**	**× a**	**× a**	**× a**	**× a**	**b**	**× a**	**× a**	**× a**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**× a**	**× a**	**b**	**× a**	**× a**	**b**	**× c**	**× c**	**× c**

Evidence supporting conclusions:

a. Section 10.4 Appropriate Assessment for other SPAs, pSPAs and Ramsar (bird feature) sites screened in on the basis of breeding seabird populations

b. The Stage 1 Screening assessment concluded that LSE could be excluded (HRA Screening Matrix F2.19) and, therefore, no adverse effect on integrity can be concluded.

c. Section 10.4 Appropriate Assessment for other SPAs, pSPAs and Ramsar (bird feature) sites screened in on the basis of breeding seabird populations

HRA Integrity Matrix H2.20: Horn Head to Fanad Head SPA

Name of European site and designation: Horn Head to Fanad Head SPA																																			
EU Code: 004194																																			
Distance to NSIP: 279.7km																																			
European site features	**Adverse effect on integrity**																																		
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**		
A009 Fulmar (Fulmarus glacialis)	**× a**	**× a**	**× a**	**× a**	**× a**	**b**	**× a**	**× a**	**× a**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**× a**	**× a**	**b**	**× a**	**× a**	**b**	**× c**	**× c**	**× c**		

Evidence supporting conclusions:

a. Section 10.4 Appropriate Assessment for other SPAs, pSPAs and Ramsar (bird feature) sites screened in on the basis of breeding seabird populations

b. The Stage 1 Screening assessment concluded that LSE could be excluded (HRA Screening Matrix F2.20) and, therefore, no adverse effect on integrity can be concluded.

c. Section 10.4 Appropriate Assessment for other SPAs, pSPAs and Ramsar (bird feature) sites screened in on the basis of breeding seabird populations

HRA Integrity Matrix H2.21: West Donegal Coast SPA

Name of European site and designation: West Donegal Coast SPA																																	
EU Code: 004150																																	
Distance to NSIP: 297.7km																																	
European site features	**Adverse effect on integrity**																																
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
A009 Fulmar (Fulmarus glacialis)	**× a**	**× a**	**× a**	**× a**	**× a**	**b**	**× a**	**× a**	**× a**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**× a**	**× a**	**b**	**× a**	**× a**	**b**	**× c**	**× c**	**× c**

Evidence supporting conclusions:

a. Section 10.4 Appropriate Assessment for other SPAs, pSPAs and Ramsar (bird feature) sites screened in on the basis of breeding seabird populations

b. The Stage 1 Screening assessment concluded that LSE could be excluded (HRA Screening Matrix F2.21) and, therefore, no adverse effect on integrity can be concluded.

c. Section 10.4 Appropriate Assessment for other SPAs, pSPAs and Ramsar (bird feature) sites screened in on the basis of breeding seabird populations

HRA Integrity Matrix H2.22: Tory Island SPA

Name of European site and designation: Tory Island SPA																																	
EU Code: 004073																																	
Distance to NSIP: 314.5km																																	
European site features	**Adverse effect on integrity**																																
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
A009 Fulmar (Fulmarus glacialis)	**× a**	**× a**	**× a**	**× a**	**× a**	**b**	**× a**	**× a**	**× a**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**× a**	**× a**	**b**	**× a**	**× a**	**b**	**× c**	**× c**	**× c**

Evidence supporting conclusions:

a. Section 10.4 Appropriate Assessment for other SPAs, pSPAs and Ramsar (bird feature) sites screened in on the basis of breeding seabird populations

b. The Stage 1 Screening assessment concluded that LSE could be excluded (HRA Screening Matrix F2.22) and, therefore, no adverse effect on integrity can be concluded.

c. Section 10.4 Appropriate Assessment for other SPAs, pSPAs and Ramsar (bird feature) sites screened in on the basis of breeding seabird populations

HRA Integrity Matrix H2.23: Ailsa Craig SPA

Name of European site and designation: Ailsa Craig SPA																																	
EU Code: UK9003091																																	
Distance to NSIP: 205.2km																																	
European site features	**Adverse effect on integrity**																																
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
A016 Gannet (Morus bassanus)	**× a**	**× a**	**× a**	**× a**	**× a**	**b**	**× a**	**× a**	**× a**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**× a**	**× a**	**b**	**× a**	**× a**	**b**	**× c**	**× c**	**× c**

Evidence supporting conclusions:

a. Section 10.4 Appropriate Assessment for other SPAs, pSPAs and Ramsar (bird feature) sites screened in on the basis of breeding seabird populations

b. The Stage 1 Screening assessment concluded that LSE could be excluded (HRA Screening Matrix F2.23) and, therefore, no adverse effect on integrity can be concluded.

c. Section 10.4 Appropriate Assessment for other SPAs, pSPAs and Ramsar (bird feature) sites screened in on the basis of breeding seabird populations

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Planning Inspectorate

Advice Note 10

Habitats Regulations Assessment

Appendix H.3: Integrity Matrices for Ramsar sites

STAGE 2: EFFECTS ON INTEGRITY

Likely significant effects have been identified for the following sites:

- Corsydd Môn a Llyn/Anglesey and Llyn Fens Ramsar - Wales (UK14005)
- Aber Afen Dyfrdwy/Dee Estuary Ramsar site – England/ Wales (UK11082)
- Mersey Narrows and North Wirral Foreshore Ramsar site – England (UK11042)
- Ribble and Alt Estuaries Ramsar – England (UK11057)
- Morecambe Bay Ramsar – England (UK11045)

These sites have been subject to further assessment in order to establish if the NSIP could have an adverse effect on their integrity. Evidence for the conclusions reached on integrity is signposted within the footnotes to the matrices below.

Matrix Key

✓ **=** Adverse effect on integrity **cannot** be excluded

✕**=** Adverse effect on integrity **can** be excluded

C = construction

O = operation

D = decommissioning

Where effects are not relevant to a particular feature, or have been excluded at screening stage, the matrix cell has been greyed out (and an explanation is provided as to why the effect is not relevant).

HRA Integrity Matrix H3.1: Corsydd Môn a Llyn/Anglesey and Llyn Fens Ramsar

Name of European site and designation: Corsydd Môn a Llyn/Anglesey and Llyn Fens Ramsar																																		
EU Code: UK14005																																		
Distance to NSIP: 14km																																		
European site features	**Adverse effect on integrity**																																	
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
Suite of base-rich, calcareous fens which is a rare habitat type within the United Kingdom's biogeographical zone	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**× b**	**a**	**a**	**× c**	**× d**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**× e**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**× f**	**× f**	**a**

Diverse flora and fauna with associated rare species and is of special value for maintaining the genetic and ecological diversity of the region	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**× b**	**a**	**a**	**× c**	**× d**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**× e**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**× f**	**× f**	**a**

Evidence supporting conclusions:

a. The Stage 1 Screening assessment concluded that LSE could be excluded (HRA Screening Matrix F3.1) and, therefore, no adverse effect on integrity can be concluded.

b. Section 7.7 item A1 (Potential increase in suspended sediment in the drainage network during the creation of new and improvement of existing fen habitat at Cae Canol-dydd and Cors Gwawr)

c. Section 7.7 item B1 (Potential effect on surface waters and groundwater during the creation of new and improvement of existing fen habitat at Cae Canol-dydd and Cors Gwawr)

d. Section 7.7 item B2 (Potential effect on surface waters and groundwater post-creation of new and the improvement of existing fen habitat at Cae Canol-dydd and Cors Gwawr)

e. Section 7.7 item C2 (Combustion plant emissions)

f. Section 7.8 (Assessment of potential effects (in-combination) for other SACs / Ramsar site)

HRA Integrity Matrix H3.2: Aber Afen Dyfrdwy/Dee Estuary Ramsar

Name of European site and designation: Aber Afen Dyfrdwy/Dee Estuary Ramsar																																	
EU Code: UK11082																																	
Distance to NSIP: 60.2km																																	
European site features	**Adverse effect on integrity**																																
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
A191 Sandwich tern (Sterna sandvicensis)	**× a**	**× a**	**× a**	**× a**	**× a**	**b**	**× a**	**× a**	**× a**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**× a**	**× a**	**b**	**× a**	**× a**	**b**	**× c**	**× c**	**× c**

Evidence supporting conclusions:

a. Section 10.5 Appropriate Assessment for SPAs and Ramsar sites screened in for passage seabird populations

b. The Stage 1 Screening assessment concluded that LSE could be excluded (HRA Screening Matrix F3.2) and, therefore, no adverse effect on integrity can be concluded.

c. Section 10.5 Appropriate Assessment for SPAs and Ramsar sites screened in for passage seabird populations

HRA Integrity Matrix H3.3: Mersey Narrows and North Wirral Foreshore Ramsar

Name of European site and designation: Mersey Narrows and North Wirral Foreshore Ramsar																																		
EU Code: UK11042																																		
Distance to NSIP: 82km																																		
European site features	**Adverse effect on integrity**																																	
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
A193 Common tern (Sterna hirundo)	**× a**	**× a**	**× a**	**× a**	**× a**	**b**	**× a**	**× a**	**× a**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**× a**	**× a**	**b**	**× a**	**× a**	**b**	**× c**	**× c**	**× c**

Evidence supporting conclusions:

a. Section 10.5 Appropriate Assessment for SPAs and Ramsar sites screened in for passage seabird populations

b. The Stage 1 Screening assessment concluded that LSE could be excluded (HRA Screening Matrix F3.3) and, therefore, no adverse effect on integrity can be concluded.

c. Section 10.5 Appropriate Assessment for SPAs and Ramsar sites screened in for passage seabird populations

HRA Integrity Matrix H3.4: Ribble and Alt Estuaries Ramsar

Name of European site and designation: Ribble and Alt Estuaries Ramsar																																		
EU Code: UK11057																																		
Distance to NSIP: 87.6km																																		
European site features	**Adverse effect on integrity**																																	
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
A183 Lesser black-backed gull (Larus fuscus)	**× a**	**× a**	**× a**	**× a**	**× a**	**b**	**× a**	**× a**	**× a**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**× a**	**× a**	**b**	**× a**	**× a**	**b**	**× c**	**× c**	**× c**

Evidence supporting conclusions:

a. Section 10.4 Appropriate Assessment for other SPAs, pSPAs and Ramsar (bird feature) sites screened in on the basis of breeding seabird populations

b. The Stage 1 Screening assessment concluded that LSE could be excluded (HRA Screening Matrix F3.4) and, therefore, no adverse effect on integrity can be concluded.

c. Section 10.4 Appropriate Assessment for other SPAs, pSPAs and Ramsar (bird feature) sites screened in on the basis of breeding seabird populations

HRA Integrity Matrix H3.5: Morecambe Bay Ramsar

Name of European site and designation: Morecambe Bay Ramsar																																	
EU Code: UK11045																																	
Distance to NSIP: 106.1km																																	
European site features	**Adverse effect on integrity**																																
Effect	**Changes in visual and acoustic stimuli**			**Land take, including seabed or intertidal land**			**Changes in marine water quality**			**Changes in terrestrial water quality**			**Changes in surface and ground water hydrology**			**Introduction of Invasive Non-Native Species**			**Change in radiation dose levels**			**Change in air quality**			**Alteration of coastal processes and hydro-dynamics**			**Physical interaction between species and Project infra-structure**			**In combination effects**		
Stage of Development	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
SBA Seabird assemblage of international importance (lesser black-backed gull)	**× a**	**× a**	**× a**	**× a**	**× a**	**b**	**× a**	**× a**	**× a**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**b**	**× a**	**× a**	**b**	**× a**	**× a**	**b**	**× c**	**× c**	**× c**

Evidence supporting conclusions:

a. Section 10.4 Appropriate Assessment for other SPAs, pSPAs and Ramsar (bird feature) sites screened in on the basis of breeding seabird populations

b. The Stage 1 Screening assessment concluded that LSE could be excluded (HRA Screening Matrix F3.5) and, therefore, no adverse effect on integrity can be concluded.

c. Section 10.4 Appropriate Assessment for other SPAs, pSPAs and Ramsar (bird feature) sites screened in on the basis of breeding seabird populations

INTEGRITY MATRIX FOR SACs and cSACs FOR THE ENVIRONMENTAL PERMITS AND MARINE LICENCES

Key to assessment of potential for adverse effect on integrity
The shadow Appropriate Assessment concludes no adverse effect on integrity
Effects are either not relevant to the qualifying feature or the Stage 1 Screening assessment concluded that LSE could be excluded.

Site	**Gogledd Môn Forol / North Anglesey Marine cSAC - Wales (UK0030398)**																															
Distance from WNDA	**0km**																															
Distance from zone of influence	**0km**																															
	Changes in visual and acoustic stimuli				**Land take, including seabed or intertidal land**				**Changes in marine water quality**				**Changes in terrestrial water quality**				**Changes in surface and groundwater hydrology**				**Introduction of Invasive Non-Native Species**				**Change in radiation dose levels**				**Change in air quality**				**Alteration of coastal processes and hydrodynamics**				**Physical interaction between species and Project infrastructure**			
Site Features (only those features in bold in Appendix B are listed)	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**
1351 Harbour porpoise *(Phocoena phocoena)*																																
Site	**Bae Cemlyn / Cemlyn Bay SAC - Wales (UK0030114)**																															
Distance from WNDA	**0.1km**																															
Distance from zone of influence	**0km**																															
	Changes in visual and acoustic stimuli				**Land take, including seabed or intertidal land**				**Changes in marine water quality**				**Changes in terrestrial water quality**				**Changes in surface and groundwater hydrology**				**Introduction of Invasive Non-Native Species**				**Change in radiation dose levels**				**Change in air quality**				**Alteration of coastal processes and hydrodynamics**				**Physical interaction between species and Project infrastructure**			
Site Features (only those features in bold in Appendix B are listed)	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**
1150 Coastal lagoons																																
1220 Perennial vegetation of stony banks																																
Site	**Glannau Ynys Gybi/Holy Island Coast SAC - Wales (UK0013046)**																															
Distance from WNDA	**13.1km**																															
Distance from zone of influence	**0km**																															
	Changes in visual and acoustic stimuli				**Land take, including seabed or intertidal land**				**Changes in marine water quality**				**Changes in terrestrial water quality**				**Changes in surface and groundwater hydrology**				**Introduction of Invasive Non-Native Species**				**Change in radiation dose levels**				**Change in air quality**				**Alteration of coastal processes and hydrodynamics**				**Physical interaction between species and Project infrastructure**			
Site Features (only those features in bold in Appendix B are listed)	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**
1230 Vegetated sea cliffs of the Atlantic and Baltic coasts																																
4010 Northern Atlantic wet heaths with *Erica tetralix*																																
4030 European dry heaths																																
Site	**Llyn Dinam SAC - Wales (UK0030186)**																															
Distance from WNDA	**14.3km**																															
Distance from zone of influence	**0km**																															
	Changes in visual and acoustic stimuli				**Land take, including seabed or intertidal land**				**Changes in marine water quality**				**Changes in terrestrial water quality**				**Changes in surface and groundwater hydrology**				**Introduction of Invasive Non-Native Species**				**Change in radiation dose levels**				**Change in air quality**				**Alteration of coastal processes and hydrodynamics**				**Physical interaction between species and Project infrastructure**			
Site Features (only those features in bold in Appendix B are listed)	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**
1150 Natural eutrophic lakes with *Magnopotamion or Hydrocharition* -type vegetation																																
Site	**Corsydd Môn/Anglesey Fens SAC - Wales (UK0012884)**																															
Distance from WNDA	**14.0km**																															
Distance from zone of influence	**0km**																															
	Changes in visual and acoustic stimuli				**Land take, including seabed or intertidal land**				**Changes in marine water quality**				**Changes in terrestrial water quality**				**Changes in surface and groundwater hydrology**				**Introduction of Invasive Non-Native Species**				**Change in radiation dose levels**				**Change in air quality**				**Alteration of coastal processes and hydrodynamics**				**Physical interaction between species and Project infrastructure**			
Site Features (only those features in bold in Appendix B are listed)	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**
H4010 Northern Atlantic wet heaths with *Erica tetralix*																																
H6410 *Molinia* meadows on calcareous, peaty or clayey-silt-laden soils																																
H7210 Calcareous fens with *Cladium mariscus* and species of the *Caricion davallianae*																																
H7230 Alkaline fens																																
H3140 Hard oligo-mesotrophic waters with benthic vegetation of *Chara* spp.																																
1044 Southern damselfly *(Coenagrion mercuriale)*																																
1065 Marsh fritillary butterfly *(Eurodryas, Hypodryas)*																																
1013 Geyer's whorl snail *(Vertigo geyeri)*																																
Site	**Afon Gwyrfai a Llyn Cwellyn SAC - Wales (UK0030046)**																															
Distance from WNDA	**58km**																															
Distance from zone of influence	**52km**																															
	Changes in visual and acoustic stimuli				**Land take, including seabed or intertidal land**				**Changes in marine water quality**				**Changes in terrestrial water quality**				**Changes in surface and groundwater hydrology**				**Introduction of Invasive Non-Native Species**				**Change in radiation dose levels**				**Change in air quality**				**Alteration of coastal processes and hydrodynamics**				**Physical interaction between species and Project infrastructure**			
Site Features (only those features in bold in Appendix B are listed)	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**
1106 Atlantic salmon *(Salmo salar)*																																
Site	**Pen Llyn a'r Sarnau/Lleyn Peninsula and the Sarnau SAC - Wales (UK0013117)**																															
Distance from WNDA	**48.0km**																															
Distance from zone of influence	**44.5km**																															
	Changes in visual and acoustic stimuli				**Land take, including seabed or intertidal land**				**Changes in marine water quality**				**Changes in terrestrial water quality**				**Changes in surface and groundwater hydrology**				**Introduction of Invasive Non-Native Species**				**Change in radiation dose levels**				**Change in air quality**				**Alteration of coastal processes and hydrodynamics**				**Physical interaction between species and Project infrastructure**			
Site Features (only those features in bold in Appendix B are listed)	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**
1364 Grey seal *(Halichoerus grypus)*																																
1349 Bottlenose dolphin *(Tursiops truncatus)*																																
Site	**Gorllewin Cymru Forol / West Wales Marine cSAC - Wales/England (UK0030397)**																															
Distance from WNDA	**48.8km**																															
Distance from zone of influence	**45.4km**																															
	Changes in visual and acoustic stimuli				**Land take, including seabed or intertidal land**				**Changes in marine water quality**				**Changes in terrestrial water quality**				**Changes in surface and groundwater hydrology**				**Introduction of Invasive Non-Native Species**				**Change in radiation dose levels**				**Change in air quality**				**Alteration of coastal processes and hydrodynamics**				**Physical interaction between species and Project infrastructure**			
Site Features (only those features in bold in Appendix B are listed)	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**
1351 Harbour porpoise *(Phocoena phocoena)*																																
Site	**Afon Eden – Cors Goch Trawsfynydd SAC - Wales (UK0030075)**																															
Distance from WNDA	**137km**																															
Distance from zone of influence	**131km**																															
	Changes in visual and acoustic stimuli				**Land take, including seabed or intertidal land**				**Changes in marine water quality**				**Changes in terrestrial water quality**				**Changes in surface and groundwater hydrology**				**Introduction of Invasive Non-Native Species**				**Change in radiation dose levels**				**Change in air quality**				**Alteration of coastal processes and hydrodynamics**				**Physical interaction between species and Project infrastructure**			
Site Features (only those features in bold in Appendix B are listed)	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**
1106 Atlantic salmon *(Salmo salar)*																																
1029 Freshwater pearl mussel *(Margaritifera margaritifera)*																																
Site	**Afon Dyfrdwy a Llyn Tegid / River Dee and Bala Lake SAC Wales/England (UK0030252)**																															
Distance from WNDA	**102km**																															
Distance from zone of influence	**96.5km**																															
	Changes in visual and acoustic stimuli				**Land take, including seabed or intertidal land**				**Changes in marine water quality**				**Changes in terrestrial water quality**				**Changes in surface and groundwater hydrology**				**Introduction of Invasive Non-Native Species**				**Change in radiation dose levels**				**Change in air quality**				**Alteration of coastal processes and hydrodynamics**				**Physical interaction between species and Project infrastructure**			
Site Features (only those features in bold in Appendix B are listed)	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**
1106 Atlantic salmon *(Salmo salar)*																																
Site	**Bae Ceredigion / Cardigan Bay SAC - Wales (UK0012712)**																															
Distance from WNDA	**109.0km**																															
Distance from zone of influence	**106.7km**																															
	Changes in visual and acoustic stimuli				**Land take, including seabed or intertidal land**				**Changes in marine water quality**				**Changes in terrestrial water quality**				**Changes in surface and groundwater hydrology**				**Introduction of Invasive Non-Native Species**				**Change in radiation dose levels**				**Change in air quality**				**Alteration of coastal processes and hydrodynamics**				**Physical interaction between species and Project infrastructure**			
Site Features (only those features in bold in Appendix B are listed)	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**
1349 Bottlenose dolphin *(Tursiops truncatus)*																																
1364 Grey seal *(Halichoerus grypus)*																																
Site	**Afon Teifi/ River Teifi SAC - Wales (UK0012670)**																															
Distance from WNDA	**155km**																															
Distance from zone of influence	**149km**																															
	Changes in visual and acoustic stimuli				**Land take, including seabed or intertidal land**				**Changes in marine water quality**				**Changes in terrestrial water quality**				**Changes in surface and groundwater hydrology**				**Introduction of Invasive Non-Native Species**				**Change in radiation dose levels**				**Change in air quality**				**Alteration of coastal processes and hydrodynamics**				**Physical interaction between species and Project infrastructure**			
Site Features (only those features in bold in Appendix B are listed)	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**	**Marine Construction, Dredging and Disposal ML**	**Operational Combustion EP**	**Operational Water Discharge EP**	**Construction Water Discharge EP**
1106 Atlantic salmon *(Salmo salar)*																																

Appendix H.4: HRA integrity matrices for the Environmental Permits and Marine Licence applications

Site	Dynesfeydd Môr Hafren / Bristol Channel Approaches cSAC - Wales/England (UK0030396)																													
Distance from WNDA	185.2km																													
Distance from zone of influence	182.1km																													
	Changes in visual and acoustic stimuli				Land take, including seabed or intertidal land				Changes in marine water quality				Changes in terrestrial water quality				Changes in surface and groundwater hydrology				Introduction of Invasive Non-Native Species				Change in radiation dose levels				Change in air quality				Alteration of coastal processes and hydrodynamics				Physical interaction between species and Project infrastructure			
Site Features (only those features in bold in Appendix B are listed)	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP
1351 Harbour porpoise *(Phocoena phocoena)*																														
Site	**Sir Benfro Forol / Pembrokeshire Marine SAC - Wales (UK0013116)**																													
Distance from WNDA	186.5km																													
Distance from zone of influence	164.7km																													
	Changes in visual and acoustic stimuli				Land take, including seabed or intertidal land				Changes in marine water quality				Changes in terrestrial water quality				Changes in surface and groundwater hydrology				Introduction of Invasive Non-Native Species				Change in radiation dose levels				Change in air quality				Alteration of coastal processes and hydrodynamics				Physical interaction between species and Project infrastructure			
Site Features (only those features in bold in Appendix B are listed)	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP
1364 Grey seal *(Halichoerus grypus)*																														
Site	**North Channel cSAC - Northern Ireland (UK0030399)**																													
Distance from WNDA	94.5km																													
Distance from zone of influence	89.5km																													
	Changes in visual and acoustic stimuli				Land take, including seabed or intertidal land				Changes in marine water quality				Changes in terrestrial water quality				Changes in surface and groundwater hydrology				Introduction of Invasive Non-Native Species				Change in radiation dose levels				Change in air quality				Alteration of coastal processes and hydrodynamics				Physical interaction between species and Project infrastructure			
Site Features (only those features in bold in Appendix B are listed)	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP
1351 Harbour porpoise *(Phocoena phocoena)*																														
Site	**Murlough SAC – Northern Ireland (UK0016612)**																													
Distance from WNDA	117.9km																													
Distance from zone of influence	112.9km																													
	Changes in visual and acoustic stimuli				Land take, including seabed or intertidal land				Changes in marine water quality				Changes in terrestrial water quality				Changes in surface and groundwater hydrology				Introduction of Invasive Non-Native Species				Change in radiation dose levels				Change in air quality				Alteration of coastal processes and hydrodynamics				Physical interaction between species and Project infrastructure			
Site Features (only those features in bold in Appendix B are listed)	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP
1365 Harbour seal *(Phoca vitulina)*																														
Site	**Strangford Lough SAC – Northern Ireland (UK0016618)**																													
Distance from WNDA	119.8km																													
Distance from zone of influence	114.8km																													
	Changes in visual and acoustic stimuli				Land take, including seabed or intertidal land				Changes in marine water quality				Changes in terrestrial water quality				Changes in surface and groundwater hydrology				Introduction of Invasive Non-Native Species				Change in radiation dose levels				Change in air quality				Alteration of coastal processes and hydrodynamics				Physical interaction between species and Project infrastructure			
Site Features (only those features in bold in Appendix B are listed)	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP
1365 Harbour seal *(Phoca vitulina)*																														
Site	**The Maidens SAC - Northern Ireland (UK0030384)**																													
Distance from WNDA	180.4km																													
Distance from zone of influence	175.4km																													
	Changes in visual and acoustic stimuli				Land take, including seabed or intertidal land				Changes in marine water quality				Changes in terrestrial water quality				Changes in surface and groundwater hydrology				Introduction of Invasive Non-Native Species				Change in radiation dose levels				Change in air quality				Alteration of coastal processes and hydrodynamics				Physical interaction between species and Project infrastructure			
Site Features (only those features in bold in Appendix B are listed)	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP
1364 Grey seal *(Halichoerus grypus)*																														
Site	**Rockabill to Dalkey SAC - Ireland (IE003000)**																													
Distance from WNDA	97.4km																													
Distance from zone of influence	92km																													
	Changes in visual and acoustic stimuli				Land take, including seabed or intertidal land				Changes in marine water quality				Changes in terrestrial water quality				Changes in surface and groundwater hydrology				Introduction of Invasive Non-Native Species				Change in radiation dose levels				Change in air quality				Alteration of coastal processes and hydrodynamics				Physical interaction between species and Project infrastructure			
Site Features (only those features in bold in Appendix B are listed)	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP
1351 Harbour porpoise *(Phocoena phocoena)*																														
Site	**Lambay Island SAC – Ireland (IE0000204)**																													
Distance from WNDA	98.8km																													
Distance from zone of influence	93.8km																													
	Changes in visual and acoustic stimuli				Land take, including seabed or intertidal land				Changes in marine water quality				Changes in terrestrial water quality				Changes in surface and groundwater hydrology				Introduction of Invasive Non-Native Species				Change in radiation dose levels				Change in air quality				Alteration of coastal processes and hydrodynamics				Physical interaction between species and Project infrastructure			
Site Features (only those features in bold in Appendix B are listed)	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP
1364 Grey seal *(Halichoerus grypus)*																														
1365 Harbour seal *(Phoca vitulina)*																														
Site	**Slaney River Valley SAC – Ireland (IE0000781)**																													
Distance from WNDA	141.2km																													
Distance from zone of influence	136.2km																													
	Changes in visual and acoustic stimuli				Land take, including seabed or intertidal land				Changes in marine water quality				Changes in terrestrial water quality				Changes in surface and groundwater hydrology				Introduction of Invasive Non-Native Species				Change in radiation dose levels				Change in air quality				Alteration of coastal processes and hydrodynamics				Physical interaction between species and Project infrastructure			
Site Features (only those features in bold in Appendix B are listed)	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP
1365 Harbour seal *(Phoca vitulina)*																														
Site	**Saltee Islands SAC – Ireland (IE0000707)**																													
Distance from WNDA	191.0km																													
Distance from zone of influence	186km																													
	Changes in visual and acoustic stimuli				Land take, including seabed or intertidal land				Changes in marine water quality				Changes in terrestrial water quality				Changes in surface and groundwater hydrology				Introduction of Invasive Non-Native Species				Change in radiation dose levels				Change in air quality				Alteration of coastal processes and hydrodynamics				Physical interaction between species and Project infrastructure			
Site Features (only those features in bold in Appendix B are listed)	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP
1364 Grey seal *(Halichoerus grypus)*																														

INTEGRITY MATRIX FOR SPAs and pSPAs FOR THE ENVIRONMENTAL PERMITS AND MARINE LICENCES

Site	Morwenoliaid Ynys Môn / Anglesey Terns SPA - Wales (UK9013061)																															
Distance from WNDA	0km																															
Distance from zone of influence	0km																															
	Changes in visual and acoustic stimuli				Land take, including seabed or intertidal land				Changes in marine water quality				Changes in terrestrial water quality				Changes in surface and groundwater hydrology				Introduction of Invasive Non-Native Species				Change in radiation dose levels				Change in air quality				Alteration of coastal processes and hydrodynamics				Physical interaction between species and Project infrastructure			
Site Features (only those features in bold in Appendix D are listed)	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP
A194 Arctic tern (*Sterna paradisaea*)																																
A191 Sandwich tern (*Sterna sandvicensis*)																																
A192 Roseate tern (*Sterna dougallii*)																																
A193 Common tern (*Sterna hirundo*)																																
Site	**Glannau Ynys Gybi / Holy Island Coast SPA - Wales (UK9013101)**																															
Distance from WNDA	**13.1km**																															
Distance from zone of influence	**0km**																															
	Changes in visual and acoustic stimuli				Land take, including seabed or intertidal land				Changes in marine water quality				Changes in terrestrial water quality				Changes in surface and groundwater hydrology				Introduction of Invasive Non-Native Species				Change in radiation dose levels				Change in air quality				Alteration of coastal processes and hydrodynamics				Physical interaction between species and Project infrastructure			
Site Features (only those features in bold in Appendix D are listed)	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP
A346 Red-billed chough (*Pyrrhocorax pyrrhocorax*)																																
Site	**Ynys Seiriol / Puffin Island SPA - Wales (UK9020285)**																															
Distance from WNDA	**30.2km**																															
Distance from zone of influence	**0km**																															
	Changes in visual and acoustic stimuli				Land take, including seabed or intertidal land				Changes in marine water quality				Changes in terrestrial water quality				Changes in surface and groundwater hydrology				Introduction of Invasive Non-Native Species				Change in radiation dose levels				Change in air quality				Alteration of coastal processes and hydrodynamics				Physical interaction between species and Project infrastructure			
Site Features (only those features in bold in Appendix D are listed)	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP
A017 Great cormorant (*Phalacrocorax carbo*)																																
Site	**Glannau Aberdaron and Ynys Enlli / Aberdaron Coast Bardsey Island SPA - Wales (UK9013121)**																															
Distance from WNDA	**63.3km**																															
Distance from zone of influence	**59.3km**																															
	Changes in visual and acoustic stimuli				Land take, including seabed or intertidal land				Changes in marine water quality				Changes in terrestrial water quality				Changes in surface and groundwater hydrology				Introduction of Invasive Non-Native Species				Change in radiation dose levels				Change in air quality				Alteration of coastal processes and hydrodynamics				Physical interaction between species and Project infrastructure			
Site Features (only those features in bold in Appendix D are listed)	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP
A013 Manx shearwater (*Puffinus puffinus*)																																
A346 Red-billed chough (*Pyrrhocorax pyrrhocorax*)																																
Site	**Mynydd Cilan, Trwyn y Wylfa ac Ynysoedd Sant Tudwal / Mynydd Cilan, Trwyn y Wylfa and the St. Tudwal Islands SPA - Wales (UK9020282)**																															
Distance from WNDA	**65.1km**																															
Distance from zone of influence	**52.2km**																															
	Changes in visual and acoustic stimuli				Land take, including seabed or intertidal land				Changes in marine water quality				Changes in terrestrial water quality				Changes in surface and groundwater hydrology				Introduction of Invasive Non-Native Species				Change in radiation dose levels				Change in air quality				Alteration of coastal processes and hydrodynamics				Physical interaction between species and Project infrastructure			
Site Features (only those features in bold in Appendix D are listed)	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP
A346 Red-billed chough (*Pyrrhocorax pyrrhocorax*)																																
Site	**Aber Afen Dyfrdwy / Dee Estuary SPA – Wales / England (UK9013011)**																															
Distance from WNDA	**60.2km**																															
Distance from zone of influence	**65.7km**																															
	Changes in visual and acoustic stimuli				Land take, including seabed or intertidal land				Changes in marine water quality				Changes in terrestrial water quality				Changes in surface and groundwater hydrology				Introduction of Invasive Non-Native Species				Change in radiation dose levels				Change in air quality				Alteration of coastal processes and hydrodynamics				Physical interaction between species and Project infrastructure			
Site Features (only those features in bold in Appendix D are listed)	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP
A191 Sandwich tern (*Sterna sandvicensis*)																																
Site	**Skomer, Skokholm and the seas off Pembrokeshire / Sgomer, Gogwm a moroedd Benfro SPA - Wales (UK9014051)**																															
Distance from WNDA	**187.1km**																															
Distance from zone of influence	**182.8km**																															
	Changes in visual and acoustic stimuli				Land take, including seabed or intertidal land				Changes in marine water quality				Changes in terrestrial water quality				Changes in surface and groundwater hydrology				Introduction of Invasive Non-Native Species				Change in radiation dose levels				Change in air quality				Alteration of coastal processes and hydrodynamics				Physical interaction between species and Project infrastructure			
Site Features (only those features in bold in Appendix D are listed)	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP
A013 Manx shearwater (*Puffinus puffinus*)																																
Site	**Grassholm SPA - Wales (UK9014041)**																															
Distance from WNDA	**194.8km**																															
Distance from zone of influence	**190.8km**																															
	Changes in visual and acoustic stimuli				Land take, including seabed or intertidal land				Changes in marine water quality				Changes in terrestrial water quality				Changes in surface and groundwater hydrology				Introduction of Invasive Non-Native Species				Change in radiation dose levels				Change in air quality				Alteration of coastal processes and hydrodynamics				Physical interaction between species and Project infrastructure			
Site Features (only those features in bold in Appendix D are listed)	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP
A016 Gannet (*Morus bassanus*)																																
Site	**Mersey Narrows and North Wirral Foreshore SPA – England (UK9020287)**																															
Distance from WNDA	**82km**																															
Distance from zone of influence	**77.3km**																															
	Changes in visual and acoustic stimuli				Land take, including seabed or intertidal land				Changes in marine water quality				Changes in terrestrial water quality				Changes in surface and groundwater hydrology				Introduction of Invasive Non-Native Species				Change in radiation dose levels				Change in air quality				Alteration of coastal processes and hydrodynamics				Physical interaction between species and Project infrastructure			
Site Features (only those features in bold in Appendix D are listed)	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP
A193 Common tern (Sterna hirundo)																																
Site	**Ribble and Alt Estuaries SPA – England (UK9005103)**																															
Distance from WNDA	**87.6km**																															
Distance from zone of influence	**82.5km**																															
	Changes in visual and acoustic stimuli				Land take, including seabed or intertidal land				Changes in marine water quality				Changes in terrestrial water quality				Changes in surface and groundwater hydrology				Introduction of Invasive Non-Native Species				Change in radiation dose levels				Change in air quality				Alteration of coastal processes and hydrodynamics				Physical interaction between species and Project infrastructure			
Site Features (only those features in bold in Appendix D are listed)	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP
A183 Lesser black-backed gull (*Larus fuscus*)																																
Site	**Bowland Fells SPA - England (UK9005151)**																															
Distance from WNDA	**128.8km**																															
Distance from zone of influence	**123.7km**																															
	Changes in visual and acoustic stimuli				Land take, including seabed or intertidal land				Changes in marine water quality				Changes in terrestrial water quality				Changes in surface and groundwater hydrology				Introduction of Invasive Non-Native Species				Change in radiation dose levels				Change in air quality				Alteration of coastal processes and hydrodynamics				Physical interaction between species and Project infrastructure			
Site Features (only those features in bold in Appendix D are listed)	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP
A183 Lesser black-backed gull (*Larus fuscus*)																																
Site	**Morecambe Bay SPA – England (UK9005081)**																															
Distance from WNDA	**106.1km**																															
Distance from zone of influence	**102.3km**																															
	Changes in visual and acoustic stimuli				Land take, including seabed or intertidal land				Changes in marine water quality				Changes in terrestrial water quality				Changes in surface and groundwater hydrology				Introduction of Invasive Non-Native Species				Change in radiation dose levels				Change in air quality				Alteration of coastal processes and hydrodynamics				Physical interaction between species and Project infrastructure			
Site Features (only those features in bold in Appendix D are listed)	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP
SBA Seabird assemblage of international importance (herring gull and lesser black-backed gull)																																
Site	**Morecambe Bay and Duddon Estuary pSPA – England**																															
Distance from WNDA	**106.1km**																															
Distance from zone of influence	**101.1km**																															
	Changes in visual and acoustic stimuli				Land take, including seabed or intertidal land				Changes in marine water quality				Changes in terrestrial water quality				Changes in surface and groundwater hydrology				Introduction of Invasive Non-Native Species				Change in radiation dose levels				Change in air quality				Alteration of coastal processes and hydrodynamics				Physical interaction between species and Project infrastructure			
Site Features (only those features in bold in Appendix D are listed)	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP
A183 Lesser black-backed gull (*Larus fuscus*)																																
SBA Seabird assemblage of international importance (herring gull and lesser black-backed gull)																																
Site	**Lambay Island SPA - Ireland (004069)**																															
Distance from WNDA	**99km**																															
Distance from zone of influence	**93.8km**																															
	Changes in visual and acoustic stimuli				Land take, including seabed or intertidal land				Changes in marine water quality				Changes in terrestrial water quality				Changes in surface and groundwater hydrology				Introduction of Invasive Non-Native Species				Change in radiation dose levels				Change in air quality				Alteration of coastal processes and hydrodynamics				Physical interaction between species and Project infrastructure			
Site Features (only those features in bold in Appendix D are listed)	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP
A009 Fulmar (*Fulmarus glacialis*)																																
A183 Lesser black-backed gull (*Larus fuscus*)																																
A199 Guillemot (*Uria aalge*)																																
A204 Puffin (*Fratercula arctica*)																																
Site	**Ireland's Eye SPA - Ireland (004117)**																															
Distance from WNDA	**102.8km**																															
Distance from zone of influence	**97.8km**																															
	Changes in visual and acoustic stimuli				Land take, including seabed or intertidal land				Changes in marine water quality				Changes in terrestrial water quality				Changes in surface and groundwater hydrology				Introduction of Invasive Non-Native Species				Change in radiation dose levels				Change in air quality				Alteration of coastal processes and hydrodynamics				Physical interaction between species and Project infrastructure			
Site Features (only those features in bold in Appendix D are listed)	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP
A199 Guillemot (*Uria aalge*)																																

Appendix H.4: HRA integrity matrices for the Environmental Permits and Marine Licence applications

Site	East Coast Marine pSPA – Northern Ireland (UK9020320)																																					
Distance from WNDA	117km																																					
Distance from zone of influence	112km																																					
	Changes in visual and acoustic stimuli				Land take, including seabed or intertidal land				Changes in marine water quality				Changes in terrestrial water quality				Changes in surface and groundwater hydrology				Introduction of Invasive Non-Native Species				Change in radiation dose levels				Change in air quality				Alteration of coastal processes and hydrodynamics				Physical interaction between species and Project infrastructure			
Site Features (only those features in bold in Appendix D are listed)	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP
A013 Manx shearwater (*Puffinus puffinus*)																																						
Site	**Copeland Islands SPA - Ireland (UK9020291)**																																					
Distance from WNDA	154.4km																																					
Distance from zone of influence	149.5km																																					
	Changes in visual and acoustic stimuli				Land take, including seabed or intertidal land				Changes in marine water quality				Changes in terrestrial water quality				Changes in surface and groundwater hydrology				Introduction of Invasive Non-Native Species				Change in radiation dose levels				Change in air quality				Alteration of coastal processes and hydrodynamics				Physical interaction between species and Project infrastructure			
Site Features (only those features in bold in Appendix D are listed)	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP
A013 Manx shearwater (*Puffinus puffinus*)																																						
Site	**Saltee Islands SPA - Ireland (004002)**																																					
Distance from WNDA	197.5km																																					
Distance from zone of influence	186km																																					
	Changes in visual and acoustic stimuli				Land take, including seabed or intertidal land				Changes in marine water quality				Changes in terrestrial water quality				Changes in surface and groundwater hydrology				Introduction of Invasive Non-Native Species				Change in radiation dose levels				Change in air quality				Alteration of coastal processes and hydrodynamics				Physical interaction between species and Project infrastructure			
Site Features (only those features in bold in Appendix D are listed)	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP
A009 Fulmar (*Fulmarus glacialis*)																																						
A016 Gannet (*Morus bassanus)*																																						
Site	**Rathlin Island SPA – Northern Ireland (UK9020011)**																																					
Distance from WNDA	231.3km																																					
Distance from zone of influence	226.2km																																					
	Changes in visual and acoustic stimuli				Land take, including seabed or intertidal land				Changes in marine water quality				Changes in terrestrial water quality				Changes in surface and groundwater hydrology				Introduction of Invasive Non-Native Species				Change in radiation dose levels				Change in air quality				Alteration of coastal processes and hydrodynamics				Physical interaction between species and Project infrastructure			
Site Features (only those features in bold in Appendix D are listed)	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP
SBA Seabird assemblage of international importance (herring gull and lesser black-backed gull)																																						
Site	**Horn Head to Fanad Head SPA – Ireland (004194)**																																					
Distance from WNDA	279.7km																																					
Distance from zone of influence	274.7km																																					
	Changes in visual and acoustic stimuli				Land take, including seabed or intertidal land				Changes in marine water quality				Changes in terrestrial water quality				Changes in surface and groundwater hydrology				Introduction of Invasive Non-Native Species				Change in radiation dose levels				Change in air quality				Alteration of coastal processes and hydrodynamics				Physical interaction between species and Project infrastructure			
Site Features (only those features in bold in Appendix D are listed)	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP
A009 Fulmar (*Fulmarus glacialis*)																																						
Site	**West Donegal Coast SPA – Ireland (004150)**																																					
Distance from WNDA	297.7km																																					
Distance from zone of influence	302.7km																																					
	Changes in visual and acoustic stimuli				Land take, including seabed or intertidal land				Changes in marine water quality				Changes in terrestrial water quality				Changes in surface and groundwater hydrology				Introduction of Invasive Non-Native Species				Change in radiation dose levels				Change in air quality				Alteration of coastal processes and hydrodynamics				Physical interaction between species and Project infrastructure			
Site Features (only those features in bold in Appendix D are listed)	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP
A009 Fulmar (*Fulmarus glacialis*)																																						
Site	**Tory Island SPA – Ireland (004073)**																																					
Distance from WNDA	314.5km																																					
Distance from zone of influence	309.5km																																					
	Changes in visual and acoustic stimuli				Land take, including seabed or intertidal land				Changes in marine water quality				Changes in terrestrial water quality				Changes in surface and groundwater hydrology				Introduction of Invasive Non-Native Species				Change in radiation dose levels				Change in air quality				Alteration of coastal processes and hydrodynamics				Physical interaction between species and Project infrastructure			
Site Features (only those features in bold in Appendix D are listed)	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP
A009 Fulmar (*Fulmarus glacialis*)																																						
Site	**Ailsa Craig SPA – Scotland (UK9003091)**																																					
Distance from WNDA	205.2km																																					
Distance from zone of influence	200.2km																																					
	Changes in visual and acoustic stimuli				Land take, including seabed or intertidal land				Changes in marine water quality				Changes in terrestrial water quality				Changes in surface and groundwater hydrology				Introduction of Invasive Non-Native Species				Change in radiation dose levels				Change in air quality				Alteration of coastal processes and hydrodynamics				Physical interaction between species and Project infrastructure			
Site Features (only those features in bold in Appendix D are listed)	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP
A016 Gannet (*Morus bassanus*)																																						

INTEGRITY MATRIX FOR RAMSAR SITES FOR THE ENVIRONMENTAL PERMITS AND MARINE LICENCES

Site	Corsydd Môn a Llyn/Anglesey and Llyn Fens Ramsar - Wales (UK14005)																																					
Distance from WNDA	14.0km																																					
Distance from zone of influence	0km																																					
	Changes in visual and acoustic stimuli				Land take, including seabed or intertidal land				Changes in marine water quality				Changes in terrestrial water quality				Changes in surface and groundwater hydrology				Introduction of Invasive Non-Native Species				Change in radiation dose levels				Change in air quality				Alteration of coastal processes and hydrodynamics				Physical interaction between species and Project infrastructure			
Site Features (only those features in bold in Appendix C are listed)	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP
Suite of base-rich, calcareous fens which is a rare habitat type within the United Kingdom's biogeographical																																						
Diverse flora and fauna with associated rare species and is of special value for maintaining the genetic and ecological diversity of the region																																						
Site	**Ribble and Alt Estuaries Ramsar – England (UK11057)**																																					
Distance from WNDA	87.6km																																					
Distance from zone of influence	82.5km																																					
	Changes in visual and acoustic stimuli				Land take, including seabed or intertidal land				Changes in marine water quality				Changes in terrestrial water quality				Changes in surface and groundwater hydrology				Introduction of Invasive Non-Native Species				Change in radiation dose levels				Change in air quality				Alteration of coastal processes and hydrodynamics				Physical interaction between species and Project infrastructure			
Site Features (only those features in bold in Appendix C are listed)	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP
A183 Lesser black-backed gull (*Larus fuscus*)																																						
Site	**Morecambe Bay Ramsar – England (UK11045)**																																					
Distance from WNDA	106.1km																																					
Distance from zone of influence	102.3km																																					
	Changes in visual and acoustic stimuli				Land take, including seabed or intertidal land				Changes in marine water quality				Changes in terrestrial water quality				Changes in surface and groundwater hydrology				Introduction of Invasive Non-Native Species				Change in radiation dose levels				Change in air quality				Alteration of coastal processes and hydrodynamics				Physical interaction between species and Project infrastructure			
Site Features (only those features in bold in Appendix C are listed)	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP
A183 Lesser black-backed gull (*Larus fuscus*)																																						
Site	**Mersey Narrows and North Wirral Foreshore Ramsar – England (UK11042)**																																					
Distance from WNDA	82km																																					
Distance from zone of influence	77.3km																																					
	Changes in visual and acoustic stimuli				Land take, including seabed or intertidal land				Changes in marine water quality				Changes in terrestrial water quality				Changes in surface and groundwater hydrology				Introduction of Invasive Non-Native Species				Change in radiation dose levels				Change in air quality				Alteration of coastal processes and hydrodynamics				Physical interaction between species and Project infrastructure			
Site Features (only those features in bold in Appendix D are listed)	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP
A193 Common tern (Sterna hirundo)																																						
Site	**Aber Afen Dyfrdwy / Dee Estuary Ramsar – Wales / England (UK11082)**																																					
Distance from WNDA	60.2km																																					
Distance from zone of influence	65.7km																																					
	Changes in visual and acoustic stimuli				Land take, including seabed or intertidal land				Changes in marine water quality				Changes in terrestrial water quality				Changes in surface and groundwater hydrology				Introduction of Invasive Non-Native Species				Change in radiation dose levels				Change in air quality				Alteration of coastal processes and hydrodynamics				Physical interaction between species and Project infrastructure			
Site Features (only those features in bold in Appendix D are listed)	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP	Marine Construction, Dredging and Disposal ML	Operational Combustion EP	Operational Water Discharge EP	Construction Water Discharge EP
A191 Sandwich tern (*Sterna sandvicensis*)																																						