ExQ1	Question to:	Question and Response
AR 1.1	Isle of Man Government (Territorial Sea Committee)	Air Traffic Safety considerations for Ronaldsway Airport Please explain if and how Isle of Man (IoM) Ronaldsway Airport regulations on air traffic safety relate to UK regulations and guidance including those of the Civil Aviation Authority. Response Regulations relating to aviation safety and air traffic services are set by the Isle of Man Civil Aviation Administration (IOMCAA), which is a separate entity to Isle of Man (Ronaldsway) Airport. Isle of Man Airport is certified under the Civil Aviation (Aerodromes) Order 2022. Isle of Man Airport Air Traffic Control is approved under the Civil Aviation (Air Traffic Services) Order 2020 and holds ATS equipment approvals, also issued under that Order. IOMCAA policy on renewable energy installations, including wind farms, is set out in publication CP1: Renewable Energy. The following UK CAA policies have been adopted as outlined in CP1: CAP764,
AR 1.4	Applicant Blackpool Airport Ronaldsway Airport	Very High Frequency (VHF) Communications The ExA notes that effects on VHF communications were scoped out of ES Volume 2, Chapter 11 [APP-015], but that there are ongoing discussions with Blackpool Airport and Ronaldsway Airport regarding this matter [REP1-028 and REP1-038]. i) The Applicant is asked to explain in more detail the reasoning for scoping out VHF communications. ii) The Applicant is asked to clarify if any other aerodromes would be affected by this issue. iii) Blackpool Airport and Ronaldsway Airport are asked to provide justification for their request for a review of effects on VHF communications (noting that this was not raised as a matter to be addressed in preapplication consultation). All parties are asked to provide an update on discussions on the matter of VHF communications. Response iii) At the time of pre-consultation, Isle of Man Airport did not have sufficient resource and did not have sufficient technical analysis of the potential impacts of the wind turbines on VHF

ExQ1	Question to:	Question and Response
		communications. Isle of Man Airport has commissioned independent analysis for all Communication, Navigation and Surveillance (CNS) for both Morgan and Mona developments and will be happy to share this with the applicant and Examining Authority on receipt.
CF 1.5	Isle of Man Government	Applicant's Response to REP1-059 regarding fishing through the SMZ
	Territorial Seas Committee	Confirm if you are satisfied with the Applicant's Responses in [REP2-005], specifically to [REP1-059.4], [REP1-059.6], [REP1-059.11, REP1-059.14 and REP1-059.27 (and any other subsections upon which you may wish to comment) regarding Queen Scallop fishery, the SMZ and inter-array cabling; and if not, clarify why not, point-by-point and supported by evidence where possible.
		Response The responses presented by the developer refer to the existing analysis presented in the EIA document, consultations with stakeholders, commitments to mitigation as part of the fisheries coexistence plan, and the fact the final design has not yet been concluded. We agree that the concerns raised by SFF are valid, and the response from the developer is (at this stage) adequate; however, there are still significant "unknowns" relating to the final design which the developer appears to rely upon to avoid directly addressing the concerns and/or making any further
		commitments at this stage. Should the final design result in significant lengths of cable infrastructure within the SMZ, the efficacy of that mitigation measure could be significantly compromised. Furthermore, if the target burial depths for both interconnector and inter-array cables are not achieved (i.e. the minimum depth is achieved, or the cable is otherwise left exposed as in other OWF developments), the impact on commercial fisheries could be much more significant than anticipated by the developer despite the proposed SMZ mitigation measure.
		There appears to be an ongoing commitment to consultation, engagement and monitoring between the developer and fisheries stakeholders. This is welcomed; however, some of the detail around this

ExQ1	Question to:	Question and Response
		ongoing monitoring is rather vague, in particular, in relation to period of monitoring, and what actions/measures may be able to be taken to address impacts on commercial fisheries should the final design and/or post-construction assessment show that the concerns raised are in fact realised.
		To summarise, it appears the developer has made efforts to assess, consult, consider and mitigate queen scallop fisheries impacts, although there remain outstanding concerns. It is of fundamental importance that the parties continue to engage and work together as the final design is developed and decided, and further, that monitoring of impacts on queen scallop biology and fisheries is undertaken pre- and post-construction to fully understand the short- and long-term impacts of the development on this important fishery.
CE 1.8	Manx Utilities	Manx Utilities Interconnector
		The Cumulative Effects Screening Matrix [APP-031] includes the Isle of Man-UK Interconnector 2 as a project in pre-application (page 173), with high data confidence, however no details are provided of its temporal overlap with the Proposed Development.
		Could Manx Utilities provide any details which are in the public domain regarding
		Interconnector Cable 2, in particular its proposed route in relation to the Proposed Development and a timeline for its application and delivery, and set out any potential interactions with the Proposed Development?
		 Response Several options for future interconnection, via a second sub-sea interconnector cable, between the Isle of Man and the North West of England have been considered with a preferred off-shore cable route/corridor running to the south of the proposed Morgan Offshore Windfarm and landing south end of Blackpool. A target date for commissioning the second interconnector is by 2030.
		 Consultation with the OWF project team has been undertaken by Manx Utilities and project updates and stakeholder engagement continues.

ExQ1	Question to:	Question and Response
		 Manx Utilities would welcome further consultation where project details, not in the public domain, can be shared and discussed as appropriate to support the assessment of any potential cumulative effects and potential interactions between the projects.
HE 1.10	Isle of Man Government Territorial Seas Committee	Setting of Isle of Man Heritage Assets Table 1.2 (and Figures 1.6 and 1.7) of the Cultural Heritage Assessment in ES Volume 4, Annex 8.2 [APP-062] indicates that there are 44 Ancient Monuments, 195 Registered Buildings and 18 Conservation Areas on the IoM within the settings study area and ZTV for the Proposed Development. Similarly, Figure 1.9 and Table A.2 set out the heritage assets on the Isle of Man taken forward for assessment. The IoM Government's LIR [REP1-047] does not include any commentary on effects on setting of terrestrial heritage assets on the IoM. Whilst noting that the Applicant has submitted a 'letter of comfort' from Manx National Heritage [REP1-036], it is not an IP in this Examination. Could the Isle of Man Government:
		 i) Explain whether Manx National Heritage forms part of the Isle of Man Government, and if it has any comments to make on the 'letter of comfort' from Manx National Heritage. ii) Provide details of any policies and/or legislation which apply to consideration of the settings of heritage assets. iii) Confirm whether it is in agreement with the Applicant's approach to assessment in section 8.5.2 of ES Volume 2, Chapter 8 [APP-026] which notes that in the absence of a formal definition of the setting of a historic asset on the IoM, the definition used for this assessment is the one defined in the UK's National Planning Policy Framework, an approach that has previously been used with the approval of Manx National Heritage on other projects on the IoM.
		iv) Provide details of the status of the IoM's heritage assets taken forward for assessment including any descriptions or assessments of their significance that are available.

ExQ1 Question to:	Question and Response
	V) Confirm whether it is satisfied with the selection of viewpoints within the vicinity of a range of the Isle of Man's heritage assets as included in ES Volume 4, Annex 10.6 [APP-039, 40, 41, 42, 43] and APP-044].
	Vi) Provide comment on whether it is satisfied with the content of ES Volume 2, Chapter 8 [APP-026] and ES Volume 4, Annex 8.2, the Cultural Heritage Assessment [APP-062], relating to:
	 The list of heritage assets taken through to assessment (Table A.2 [<u>APP-062</u>]), and the Applicant's reasons for scoping out other heritage assets set out in the Gazetteer (pages 120 to 145 [<u>APP-062</u>]).
	The conclusions of [APP-026] relating to effects on setting of Isle of Man heritage assets both project-alone (section 8.8.7) and cumulatively (section 8.10.6). In particular, the ExA seeks your comments on cumulative Scenario 3, which concludes moderate adverse effects (significant in EIA terms) for: the Point of Ayre lighthouse (147); the Point of Ayre fog horn (297); the small lighthouse on the Point of Ayre Beach known as Winkie (298); and the Maughold lighthouse (300).
	Response
	i) Manx National Heritage is the 'operating name' of the Manx Museum and National Trust constituted under the terms of the Manx Museum and National Trust Act 1959 and linked to the Isle of Man Government via the Department for Enterprise. It is a charitable body receiving partial financial support from the Isle of Man Government and its Trustees are appointed by Tynwald. On a day to day basis MNH operates at 'arm's length' but has close relationships with Government Departments including the provision of specialist advice on heritage matters. ii) Cultural heritage legislation relating to Ancient Monuments, Registered Buildings and Conservation Areas on the Isle of Man consists of the Manx Museum and National Trust Act 1959 ('MM&NTA') for Ancient Monuments and the Town & Country Planning Act 1999 for Registered Buildings and Conservation Areas. Manx National Heritage ('MNH', the operating name of the Manx Museum and National Trust) only has responsibility for the former, and the responses relating to Ancient Monuments are provided by MNH. Responses concerning Registered Buildings and Conservation Areas are provided by DEFA/TSC.

ExQ1 Question to:	Question and Response
	Legislation Manx Ancient Monuments legislation is silent on the concept of 'setting'. Section 24 of the MM&NTA however states: 24 Powers and duties of Manx Museum and National Trust The Trust shall — (a) promote the permanent preservation for the benefit of the people of the Isle of Man of lands and tenements (including buildings) of beauty or historic interest and, as regards lands, the preservation (so far as practicable) of their natural aspect, features and animal and plant life; the preservation of buildings of national interest or architectural, historic or artistic interest, and places of national interest or beauty, and the protection and augmentation of the amenities of such buildings and places and their surroundings; This has from time to time been invoked in order to justify comment by MNH on the impacts of
	development upon Ancient Monuments and other heritage assets within its care. Policy The Island's overarching planning policy document is the Isle of Man Strategic Plan 2016, produced by DEFA (Planning and Building Control); this contains Environment Policy 40, which states: Environment Policy 40: Development will not be permitted which would damage, disturb or detract from an important
	archaeological site or an Ancient Monument or the setting thereof. DEFA (Planning and Building Control) seeks the opinion of MNH or takes comments submitted by MNH on setting matters into consideration where a development affects a monument in this way. In the absence of more detailed Isle of Man legislation and policy, MNH from time to time takes cognizance of Historic England publications such as The Setting of Heritage Assets (Historic

ExQ1	Question to:	Question and Response
		Environment Good Practice Advice in Planning Note 3) when considering the impact of development and making comment to DEFA (Planning and Building Control).
		iii) As already noted within these answers, the definition used for assessment of 'setting' is the one defined in the UK's National Planning Policy Framework, an approach that has previously been used with the approval of Manx National Heritage on other projects on the IoM; where Ancient Monuments are concerned MNH has no difficulty with its use for this development and would recommend it to the Isle of Man Government.
		Furthermore, MNH can confirm that it is in agreement with the process undertaken by the applicant when scoping out some protected monuments and when assessing the potential impact of the development on the setting of those monuments that remained.
		iv) Please see attached Word document Morgan – IoM Monuments detailing the legal status of the monuments taken forward for assessment, together with the latest publicly-available description of each site. Due to the inconsistencies noted in our response to Question vi), details for sites 0557 Cashtal yn Ard and 1068 Cronk ny Merriu have been included. Assessments of significance to modern criteria and with 'official' standing have not been undertaken by MNH for existing protected monuments on the Isle of Man.
		v) The relevant professional staff at MNH have longstanding familiarity with all of the heritage assets included in the assessment and are aware that the applicant's archaeological consultants have also visited the sites when considering setting impacts. In addition, MNH is familiar with all of the viewpoints included in ES Volume 4, Annex 10.6, comprising: 18: Herring Tower Trig Point, Langness Peninsula 19: Panoramic Viewpoint at Arch Southwest of Douglas Head

ExQ1	Question to:	Question and Response
		20: Snaefell, summit Station Trig Point
		42: Maughold Head Lighthouse
		43 (Day & Night): Old Laxey
		44: Slieau Ruy Cairn
		45: South Barrule Cairn
		46 (Day & Night): Port St. Mary
		49 (Day & Night): Douglas Promenade
		50: Coast Path at Chasm/Sugarloaf
		From a general perspective, having reviewed the various types of illustrations produced for each viewpoint (Baseline photography, Wireline and Photomontage, 90° Cumulative Wirelines and 53.50° field of view Wireline and Photomontage), MNH would suggest that the selected viewpoints provide a good range of views towards the development from the Isle of Man, and therefore also of the potential scale of impact upon the setting of the archaeological heritage assets. In making this assertion, MNH is reassured that the applicant's archaeological contractor has visited all of the affected archaeological heritage assets.
		vi) MNH has read and assessed the Isle of Man aspects of ES Volume 2, Chapter 8: Marine archaeology and cultural heritage, and ES Volume 4, Annex 8.2: Cultural heritage assessment, and in particular has considered from the latter document i) Table 1.8: Assessment of potential effects arising from changes within the settings of terrestrial designated historic assets (printed page nos 29-39) and ii) Appendix B: Gazetteer (printed page nos 115-120).
		We note two possible inconsistencies:
		Asset Cronk ny Merriu Promontory Fort 1068.00 (printed page 38-39) has been included in Table
		1.8, but omitted from Appendix B. The assessment records a 'negligible adverse' impact and a 'minor adverse' significance of effect, both of which statements we would agree with. The site is largely shielded from the development by rising ground to the east. Given that the applicant has

ExQ1	Question to:	Question and Response
		demonstrated that its setting has been considered, our view is that its omission from Appendix B causes no significant difficulty.
		Gazetteer List Entries 557 Cashtal yn Ard 0557.00, 580 Eastern Keeill, Maughold 0580.00, 582 Middle Keeill, Maughold 0582.00 and 583 North Keeill, Maughold 0583.00 (printed pages 116117) were scoped 'in' for a site visit, scoped 'in' for assessment, and carry the comments 'Sea views are not intrinsic to the setting' or 'Sea views do not contribute to the significance'. Additionally the Notes for Cashtal yn Ard contain the remark, 'situated on raised land giving views overlooking most of the parish of Maughold and across the sea to the Lake District': we agree that sea views are not intrinsic to the setting, and further that, whilst the Lake District is visible from this site, the development would not interfere with this view. The omission of the site from Table 1.8 is therefore not, in our view, a difficulty. In common with other chapel sites that have been omitted from further assessment, we also agree with the omission of the three chapel sites at Maughold.
		Aside from these inconsistencies, MNH can confirm that it is satisfied with the list of heritage assets taken through to assessment, and with the assessment results themselves. We can also confirm that we have considered the assets which were scoped 'out' of a requirement for a site visit (printed page nos 118-120), and agree with the reasons for not taking them forward for further assessment.
		With regard to the last part of question vi) the TSC can confirm that it is satisfied with the selection of and assessment of the heritage assets (registered buildings and conservation areas) in APP-026, including those listed as being assessed as having moderate adverse impact. It is noted by the TSC that the applicant made substantial efforts in public consultation in the Isle of Man and would expect that these responses be fully considered in the examination.

ExQ1	Question to:	Question and Response
MO 1.12	Isle of Man Government	Manx Shearwater
		Section 2.4 of the Isle of Man Government's Local Impact Report [REP1-047] notes particular concerns regarding impacts on Manx shearwaters and great black backed gulls. The RSPB also raise key concerns regarding effect on Manx shearwater [RR-035].
		Can the Isle of Man Government clarify:
		i) The conservation status of these species on the Isle of Man.
		ii) Whether they agree with the methodology and impacts in ES Volume 2, Chapter 5 [APP-023] having regard to the RSPB comments on this species.
		iii) Any further comments to substantiate its concerns.
		Response
		i) Manx shearwater – Amber list species (Manx BoCC 2021)
		Estimated 1500 pairs breeding in 2024, recovering population Most recent data – MWT annual counts for MNH, from the Calf of Man Bird Observatory. There was a huge colony of Manx shearwaters on the Calf of Man up to the end of the 18th century, probably the largest then known, and the fat young were harvested as 'puffins' and pickled for the London market. The appearance of rats in the 18th century seems to have caused their extinction around that time as a breeding visitor. It was later noted as 'probably breeding in small numbers', from the Bird Observatory being set up in 1959 (Cullen & Jennings, 1986, suggested perhaps only 10-12 pairs) on the basis of adult activity. Rat control was initiated in 1979, and 32 'apparently occupied burrows' were recorded in 1991, young were found in 2 burrows in 2000, proving breeding, and in 2005 the Manx Bird Atlas recorded 104 occupied burrows, from calls being played at burrow entrances. A full rat eradication project came into operation in 2012 and there have been consistent and substantial increases in the breeding numbers of Manx shearwaters since then, most recently estimated form surveys of sampled areas, at 1500 pairs (2024, unpublished, MWT pers. comm. and included in the draft 2024 UK Ramsar Report). The Calf of Man has not been declared 'rat-free', as there have been occasional appearances of rats, followed up with a control response, which are either from new arrivals or a remainder from difficult to reach areas (it is not possible to determine

ExQ1	Question to:	Question and Response
		which). Monitoring points and reactive controls, remain. The project has nevertheless been a massive success for Manx shearwaters.
		Great black-backed gull – Red List species (Manx BoCC 2021) Most recent data – Seabirds Count (15-yearly count across British Isles). A full survey was made on the IoM (results available from Manx BirdLife - 'The Isle of Man Seabird Census: Report on the census of breeding seabirds in the Isle of Man 2017-18' - or data and summaries from the Seabird Monitoring Partnership (via the JNCC)). Manx BoCC 2021 – red list species, qualifying under the following criteria: BDp1 -78.5%; BDp2 -70.6%; BDr1 -59.2% (see definitions below). The decline in this species may actually have aided the recovery of the Manx shearwaters.
		- BDp Decline in breeding population Estimated maximum number of definite, probable and possible breeding pairs per annum. BDp1 Short-term decline 1998-2003 to 2006-16, except seabirds for which 1999 to 2017-18: Red ≥50% decline, Amber = 25-49% decline. BDp2 Longer-term decline 1977-81 to 2006-16, except seabirds for which 1969-70 to 2017-18: Red ≥50% decline, Amber = 25-49% decline.
		- BDr Decline in breeding range Range = number of squares in which definite, probable or possible breeding recorded. BDr2 is possible only at 5km square resolution, for which loss of sensitivity in identifying range declines is offset by more sensitive Red and Amber thresholds than for BDr1 which can be assessed at a resolution of 1km squares. BDr1 Short-term decline 1998-2003 to 2006-16, except seabirds for which 1999 to 2017-18, assessed at 1km square resolution: Red ≥50% decline, Amber = 25-49% decline. BDr2 Longer-term decline 1977-81 to 2006-16, except seabirds for which 1977-81 to 2017-18, assessed at 5km square resolution: Red ≥35% decline, Amber = 15-34% decline.

ExQ1	Question to:	Question and Response
		ii) The TSC acknowledges the difficulties in baseline characterisation with regard to Manx Shearwaters. In particular there are challenges in characterising the nocturnal activity on a site, which will create a level of error around the results of daylight surveys with respect to those species that have been shown to be active nocturnally. There are uncertainties around the response of this species to a variety of illumination situations and the levels at which this becomes disorientating or attracting to shearwaters, and its flight characteristics in poorer weather conditions and heavier seas might vary from those measured in studies during lighter weather. These are recognised issues in the scientific literature. With current understanding and available data it is difficult to see how these uncertainties could be further resolved within this assessment, but where the science is lacking, then monitoring is an option for enlightening the situation with regard to future development assessments.
SN 1.7	Isle of Man Government (Territorial Sea Committee)	Mooir Vannin navigational risk and safety assessment
		Please confirm the assumptions of the Applicant for the Morgan Generation Assets Proposed Development in its ES Volume 2, Chapter 7 [APP-025] and restated in [PD1-017, RR-021.7] that:
		i) Potential navigational safety effects, including any arising from cumulative and/or interactive impacts together with the Morgan Generation Assets Proposed
		Development, will be addressed through the development consent process for the Mooir Vannin OWF project, as assumed by the Applicant.
		ii) Navigational Risk Assessment for the Mooir Vannin OWF project consent application will be required by the relevant authority in the Isle of Man to follow the guidance of UK MCA Marine Guidance Note
		MGN654 and its Annex 1 'Methodology for Assessing Marine Navigational Safety and Emergency Response Risks'.
		Response
		The TSC is not currently in a position to confirm the assumptions in respect of the proposed Mooir Vannin OWF. The Department of Infrastructure continues to prepare the necessary legislation and requirements to support the consideration of an application in respect of offshore renewable energy generation and will continue to work with advisors to understand what will be required to be

ExQ1	Question to:	Question and Response
		submitted to satisfy the relevant stakeholders and will be subject to an Examination. Shipping and Navigation will be considered as part of an Environmental Impact Assessment undertaken by an applicant, and the subsequent Environmental Statement will form part of the submitted application, subject to consultation and Examination. However, the TSC would also expect that as part of this application, the proposed Morgan OWF will also be taking into account the proposed Mooir Vannin OWF as part of their Navigational Risk Assessment and will work with the relevant project teams to consider and agree to any required mitigation measures to satisfy both projects, providing safe navigation should the projects be built. The TSC further expects continued engagement with the IOMSPC and Mezeron (if required under Scenario 3 where there could be impacts on the Glasson route) to ensure a suitable outcome is reached to ensure there are no impacts on these routes, noting that the magnitude of impact to the IOMSPC is considered to be high. The Department of Infrastructure continues to consider the relevant Guidance that will apply in respect of the applications for marine infrastructure consent, including shipping and navigation. The Mooir Vannin Scoping Opinion sets out that "With regards Guidance, it is noted in Chapter 2 at section 2.5 that whilst there may be areas where the Isle of Man is lacking in guidance in respect of specific topics, the applicant will have regard to guidance, and that regard will be given where appropriate to advice published in the UK and the EU, subject to consultation with and the agreement of the Dol. This is accepted and the various Departments will welcome future consultations and discussions on what they will require as the project progresses. It should be further clarified that agreement to use advice and guidance from neighbouring jurisdictions will not always lie with the DOI; whilst the DOI can suggest what is used in respect of its statutory responsibilities and duties, in respect of rece

ExQ1	Question to:	Question and Response
SLV 1.4	Isle of Man Government	SLVIA Methodology and Viewpoints – Isle of Man
		i) The IoM Government is asked to confirm if it is satisfied with the range, location, accuracy and quality of viewpoints on the Isle of Man as listed at Table 10.19 [APP-014] and shown within ES Volume 4, Annex 10.6 [APP-039, 40, 41, 42, 43] and APP-044], and if not, provide suggestions for additional/alternative viewpoints.
		ii) Does the IoM Government agree with the Applicant's assessment of effects on users of the Raad ny Foillan Coast Path and individuals at the coastal settlements of Douglas and Laxey as moderate to major adverse and not significant? (refer to previous question for the references).
		Response
		i) The TSC is satisfied with the viewpoints selected and the presentation of them in the ES. See also response to questions in HE 1.10.
		ii) The TSC agrees with the assessment of the effects mentioned as moderate to major adverse. However, there does seem to be some contradiction over the significance of these. In Table 10.24 "moderate to major" is assessed as "not significant" in some places but "potentially significant" in others. Notwithstanding the contradictions, there doesn't appear to be justification as to how a major negative impact can be assessed as not significant. It is also noted in volume 8 that "moderate adverse" visual effects are assessed as "significant". It is noted by the TSC that the applicant made substantial efforts in public .consultation in the Isle of Man and would expect that these responses be fully considered in the examination.

Morgan: Legally-protected Monuments on the Isle of Man

Forms of Protected Status under Manx legislation

'Guardianship Monuments' are sites which have been placed in the legal guardianship of the Manx Museum and National Trust, under the terms of Section 10 of the MM&NTA. They are legally defined as sites 'the preservation of which is in the opinion of the Trust a matter of public interest by reason of the historic, architectural, traditional, artistic, scientific or archaeological interest attaching thereto'.

'Listed Monuments' are sites which the Manx Museum and National Trust has protected under the terms of Section 13 of the MM&NTA, having assessed them to be 'monuments the preservation of which is of national importance'.

Sites in the following list which are not marked as either 'listed' or in 'guardianship' lie on land owned by the Manx Museum and National Trust and are managed as if they are in guardianship (NB three sites, Nos 31, 75, 132, were in guardianship until acquired by the Manx Museum and National Trust).

31 Hango Hill, Malew (0031.00)

Medieval burial mound; execution site; banqueting hall; gun battery.

This prominent artificial mound stands on a natural summit at the northernmost point of Castletown Bay. It is believed to have served several uses, the earliest perhaps being for prehistoric burials. It is more likely to have been a pagan Viking burial monument, similar to mounds at Knock Rushen and Balladoole just to the west, and to others around Jurby in the north of the Island. The Vikings seem later to have used it as a place of execution, since its name is derived from the Old Norse for 'hanging hill'.

The site is most well-known as the place where William Christian was executed in 1663 for his part in surrendering the Royalist-held Island to Parliamentary forces in 1651.

The Earls of Derby built a hall on the top of the hill shortly after, of which only the ruinous northern end survives: it was originally about 10m long. Early drawings show a building with battlements, though it seems only ever to have served as a banqueting hall and a summerhouse. It is associated with horseracing organised by the Earls along the dunes to the east onto Langness - the first 'Derby' races.

A battery of four small cannon is recorded as present in the later 17th century but had fallen into decay in the first half of the following century.

The banqueting hall was undermined by coastal erosion and was in ruins by the end of the 18th century. The hill is now protected from further damage by a seawall.

41 Cronk Carran, The Chasms Hut Circle (0041.00)

Roundhouse.

This neatly formed stone building, constructed using several large stones, is about 6m in diameter and by size would appear to be a small Bronze or Iron Age hutcircle. Its coastal location and isolation are unusual.

74 Cashal Rhunt, Cass ny Hawin (0074.00) Listed Monument

Iron Age defended promontory; medieval watch station.

The site is protected by an earthen bank and ditch across the landward side, and on the north side by precipitous cliffs on the north and east. The bank is 7m wide with a maximum inner height of 1.5m and outer height of 2.2m. A ditch to the landward of this is 6m wide on average and 1m deep, though it has suffered plough damage.

Excavation by PS Gelling in 1957 showed that the rampart was faced with dry walling inside and out and was 3.8m wide. The excavator believed that both faces were part of a reconstruction, for they stood on a layer of slatey rubble and building stone, which was thought to be Iron Age in origin. The rebuilding of the rampart probably took place before the construction of the rectangular longhouse within the enclosed promontory. Prior to investigation, there were surface indications of the building, but excavation proved it to be orientated NW-SE, with bowed walls and internal measurements of 7.5m by 4m. There was a possible entrance 2m wide in the south-east corner, but no trace of stonework. Apart from a few postholes for support for the roof and entrance, little else survived to indicate the construction of the walls, which seem to have been of earth and turf. There was a rudimentary raised bench along each long wall and at the west gable, formed by cutting down into the bedrock in the centre of the building; here there was also a hearth.

The excavator believed that the house represented Medieval reoccupation of the site. More recently it has been argued that the building was used as a watch-house as part of a system of watch and ward, and did not serve a domestic purpose.

75 Derby Fort, St Michael's Isle, Malew (0075.00)

Sixteenth and seventeenth century coastal fort.

This circular fort dates from the 1540s and was built for Henry VIII of England. The fort is about 24m in diameter and has walls 3m thick and 5m high, and was constructed to protect Derbyhaven Bay against enemy shipping. The island on which it stands is sometimes named Fort Island in its honour.

About a century later the fort was modernised by James Stanley, 7th Earl of Derby and Lord of Man. Stanley was a Royalist and built several fortifications on the Island during the Great Civil War against Parliamentary attack. Later, the fort was used as a lighthouse, though the short tower housing the light was removed around the end of the 19th century.

Today the fort has a battlemented walkway, below which are openings for seven cannon. A further opening has been filled in and replaced with a chimney flue for one of two ruined buildings constructed inside; their origin is not certain. The cannon are not original, but have been collected from various sites around the Island.

A worn sandstone plaque above the entrance bears the remains of a crown, the letters 'I.S.' for James Stanley, and a date beginning 164-. The slight remains of an earthwork fort lie just to the south-west.

The fort was part of a system of coastal defences instigated by Henry VIII to counter attacks from France and Spain. The most well-known are on the south coast of England, but Henry actually started the network in the north, so this may be an early example.

77 Hango Broogh, Langness, Promontory Fort (0077.00) Listed Monument

Defended promontory.

Earthwork remains survive on a raised rocky triangular promontory on south side of the narrow channel between St Michael's Isle and Langness.

The interior is surrounded by a bank except for a 20m strip to the south east. A pathway to the entrance is grooved with shallow steps cut into a natural shelf in the rock. This may also have served as a slipway for small boats. The entrance takes the form of a scooped hollow through the bank, 4m wide at the base and 9m wide across the top. The scooping of the entrance continues well into the interior of the fort.

The strength of the perimeter bank is variable, in some places surviving to maximal widths of 4 to 6m and heights of 1.1 to 1.6m above the interior. Elsewhere it is weaker and more fragmentary with an average width of 1.5m and an average height of 0.4m. No outer ditch is necessary and there is no visible trace of internal structures.

Limited excavation in 2000 recovered gorse charcoal dated to the 11th and 13th centuries. This may represent the firepit of a beacon serving as part of a watch and ward system of coastal defence.

79 Knock Rushen Burial Mound (0079.00) Listed Monument

Medieval burial mound; execution site.

The mound is about 14m in diameter and 2.1m high, but is somewhat irregular due to disturbance in the past. While the natural limestone bedrock is very close to the surface and outcrops in the vicinity, the mound itself appears to be of mixed stone and earthen construction.

The site has never been excavated, but is perfectly located to have served as a burial monument of the kind constructed by pagan Viking settlers on the Island in the late 9th or early 10th century.

Tradition states that the mound was used also as a place of execution.

80 Castle Rushen (0080.00)

Medieval stone castle.

Castle Rushen is widely regarded as one of the most complete medieval fortresses in Europe. It was begun by the Norse kings of Man in the later 12th century, probably by Reginald (1187-1226), though its form was influenced by Anglo-Norman design. It was captured by Robert Bruce during a Scottish raid in 1313 that was intended to frustrate English activity in the Irish Sea, but seems to have undergone repair and significant development soon after.

In 1417 it was the location for a Tynwald assembly and again in 1422 for an assembly held before Sir John Stanley, the new English overlord. At this time it had attained its modern height and a curtain wall had been added. By the 16th century further development had taken place, transforming it into an artillery fortress protected against cannon-fire by an outer glacis.

In the mid 17th century the castle was refortified by James Stanley the 7th Earl of Derby as part of his defence of the Island against Parliamentary forces. In spite of this the castle fell due to a rebellion by the Manx against the Stanley family in 1651 in the face of a threatened siege by Parliamentary forces.

More recently the castle served a more administrative function, acting as the governor's residence and as a prison. In the early 1900s the many late accretions resulting from its development as a prison were removed, restoring it to some of its former glory as a medieval fortress and the seat of kings whose power held sway over the Irish Sea and the Western Isles of Scotland.

132 St Michael's Chapel, St Michael's Isle, Malew (0132.00)

Medieval chapel.

St Michael's Chapel gives its name to the islet lying at the north end of Langness in the mouth of Derbyhaven Bay. One of the earliest references to it is found in an entry for 1250 in the Chronicles of the Kings of Man and the Isles, and shows that it was an important strategic site. By this time the chapel may have already been in existence for about a hundred years.

The chapel is 9m long by 4.5m wide: because it was used for congregational worship it is significantly larger than the earlier chapels or 'keeills' that are so characteristic of the Island, but it was not part of the parish system that replaced them, and is shown ruinous in a mid-17th century illustration. The same illustration shows the characteristic belfry on the west gable. Both the chapel and the burial ground in which it stands were used by Catholic worshippers from the 16th to the 18th centuries and for the victims of shipwreck more recently, but probably had its origins in the 12th or 13th centuries.

The coastal location of St Michael's Chapel echoes some of the churches built around the 12th century in the Western Isles and Orkney, at a time when Manx links with these islands were strongest.

174 Upper Lighthouse, Calf of Man (0174.00)

Lighthouse.

This lighthouse, together with its twin nearby, was built in 1818 for the Northern Lighthouse Board to the designs of Robert Stevenson, one of the Board's most famous engineers.

The two lighthouses worked in tandem, indicating to passing ships if they were in danger of colliding with the Chicken Rock nearly 2km to the south. The Stevenson lighthouses were replaced by a lighthouse on the Chicken Rock itself in 1875, after several difficult years of construction. More recently a modern light, warning of the dangers of the Calf of Man itself rather than the sinister reef to the south, was installed close to the old Stevenson towers in 1967, but this was decommissioned in 2007 as unnecessary in the modern age of satellite-enabled navigation and global positioning. The Chicken light was upgraded at the same time so that its light is visible from a distance of 21 miles.

In common with many of the NLB's installations, each lighthouse was attached to a keeper's house, with adjoining garden and other basic facilities. The buildings are now maintained as nesting sites for birdlife in keeping with the status of the Calf of Man as a nature reserve and bird observatory.

229 Vowlan; Hangman's Hill; Danes' Fort (0229.00)

Defended promontory.

The site lies within the morainic landscape of the northern end of the Isle of Man and is necessarily different from other promontory fortifications which rely on the rocky character of the rest of the Island's coastline.

The site relies for its defence on a large gully to the north and a shallow one to the south, and formerly on the sea to the east, although this is now obscured by land reclamation. Quarrying for sand, gravel and marl has mutilated the cliffline and is likely to have reduced the extent of the promontory.

The site was excavated by Gerhard Bersu in 1946. He found posthole evidence of a series of lightweight timber buildings, with walls of stakes probably woven with withies; no daub or clay was identified. The buildings varied in size from 3.9 m by 7.8 m to 5.4 m by 9.8 m. They were rectilinear, with rounded corners, a central aisle, and unlined cooking pits or hearths. The buildings were superimposed one upon the other with little time lapse between construction. No datable material was found, but by analogy they could be classified as Viking of 9th century onwards. Bersu considered them not to be farmhouses but more likely to be temporary dwellings within a defensive enclosure used by raiders for the period of their raid. The beach and old rivermouth just to the south would tend to strengthen such a suggestion.

The site is now overgrown, but inspection since Bersu's excavation has failed to find traces of the bank surrounding the promontory surveyed by the Ordnance Survey in 1869. Any landward ditch has been damaged or obscured by the later track which led to a 19th century marl pit just to the south. Quarrying would appear to have reduced the extent of the promontory, even since the 1869 Survey.

The Castle Rushen Papers contain a reference in 1627 to 'Hangmans Hill' as the site of the night watch-station for the parish of Lezayre. The same source later makes reference to the 'Danes fort' in 1719. The coastline of Lezayre is quite short, and this is probably the only location suitable for the Night Watch. It is tempting to see both references as relating to Vowlan, though the latter is perhaps somewhat fanciful. Bersu's interpretation as a raiding party's defence is based on rather outdated views of Viking activity in the Irish Sea from the late 8th century onwards, and it would seem more appropriate to see the site as performing a function associated with policing the coastline and perhaps also overseeing beach markets.

557 Cashtal Yn Ard (0557.00) Guardianship Ancient Monument

Neolithic chambered tomb.

The well-preserved chambered tomb of Cashtal yn Ard is situated on raised land giving views overlooking most of the parish of Maughold and across the sea to the Lake District. Although the stone cairn has been stripped away, the largest, firmly-set stones create a dramatic burial site.

The impressive arcade of the sharply curved forecourt, now restored, measures 6.7m wide by 5.8m deep. The largest of the stones forming the forecourt stand 2.3m above ground level. Five stone-built chambers extend eastwards from the forecourt, each chamber separated from its companion by lateral stone slabs. The maximum height of the stones forming the chambers is 1m, gradually reducing eastwards. The longest of the chambers is 3.2m and the shortest is 2m long; the average width is 1.2m. The overall length of the tomb is 39m.

When first recorded in the 19th century, the cairn was clearly almost rectangular, and stood almost 1.2m high, the body of the cairn being revetted behind post-and-panel walling. The walling, most of the cairn material, and some of the orthostats forming the forecourt were removed in the middle of the 19th century for house building.

A few flints and some sherds of Neolithic pottery were found in the chambers.

558 Keeill Chiggyrt, Keeill Casherick (0558.00) Listed Monument

Medieval chapel.

The site was investigated by the Manx Archaeological Survey (1915). The Survey found that the chapel was orientated NE-SW, with walls standing up to 0.6m high, and 0.9m thick. The chapel itself measured 6.1 by 3.5m internally, and had a doorway in the 'western' gable. Only faint traces of an east window were observed, although local reminiscence recorded at the time suggest others may once have existed. The outside faces of the walls, particularly on the north, east and south sides, were obscured by collapsed masonry.

A semi-circular dais extending almost the full width of the 'east' wall was interpreted as marking the base of the altar.

Two crosses (Manx Crosses 79, 163) have been found on the site.

559 Gob ny Garvain Promontory Fort (0559.00) Listed Monument

Defended promontory.

The fort is located on a headland jutting south-eastward into the sea. It is lozenge-shaped, its longest axis running SW-NE measuring roughly 50m across. Natural defences are provided by precipitous gullies on the west and north sides thus providing a natural all round sheer rock face on all but a 20m strip to the north-west. Here an inner bank 4m wide at the base with a maximum interior height of 1m has been constructed; it has no apparent entrance. The bank is paralleled to the north by a ditch, beyond which lie an outer bank and ditch. The eastern half of both have been mutilated by a field boundary and cultivation.

There is no visible trace of any internal structures. The site is most likely of Iron Age origin, but may have been re-used during the medieval period.

560 Rullic Keeill Vael, The Barony (0560.00) Listed Monument

Bronze Age barrow cemetery; medieval chapel and burial ground.

Approximately fifteen burial mounds were surveyed on the Barony hilltop at the time of the Ordnance Survey in 1867. The remains are now less distinct.

Amongst the mounds are the remains of a medieval chapel which was investigated by the Manx Archaeological Survey in 1915 and found to measure 7.2 by 3.8m internally. The Survey noted that the western end of the chapel was largely destroyed. The structure is now obscured by field clearance stones.

At the time of the Survey the medieval chapel was noted as lying within a well-defined enclosure about 45m long by 40m wide. The remains are now rather more fragmentary and ill-defined.

580 Eastern Keeill, Maughold (0580.00) Guardianship Monument

Medieval chapel and burial ground.

The site was investigated by the Manx Archaeological Survey in 1915. The structure is orientated ESE-WNW, and measures 6.4 by 3.4m internally, with a doorway in the 'west' gable; the walls are 0.4m high and 0.7m thick. The chapel has been obscured by a later structure and a well, the latter of which was sunk through the south-east corner and appears to have destroyed any trace of an altar.

Traces of early burials have been recorded nearby, and two fragments of carved stone crosses were recovered by the Survey.

Maughold is thought to have been an early medieval monastery, focussed around a shrine to St Maughold. The site was significant and wealthy enough to be threatened by a raid in 1158, but was saved by a miracle as recorded in the Chronicle of the Kings of Man and the Isles.

582 Middle Keeill, Maughold (0582.00) Guardianship Monument

Medieval chapel and burial ground.

The site was investigated by the Manx Archaeological Survey (1915). The building is orientated ESE-WNW, and measures 5.8 by 3.5m internally. It has walls 0.3m high and 0.6m thick. The doorway is in the 'west' gable, but no other architectural details survive.

A carved stone (Manx Cross 43) was found just outside the chapel, and fragmentary evidence for burials inside.

Maughold is thought to have been an early medieval monastery, focussed around a shrine to St Maughold. The site was significant and wealthy enough to be threatened by a raid in 1158, but was saved by a miracle as recorded in the Chronicle of the Kings of Man and the Isles.

583 North Keeill, Maughold (0583.00) Guardianship Monument

Medieval chapel and burial ground.

The site was investigated by the Manx Archaeological Survey (1915). The chapel is orientated ESE-WNW, and measures 4.7 by 2.8m internally. The walls are 0.7m thick, and stand 0.8m high from the floor, which is now cobbled. The Survey found no trace of an altar, nor windows, though a recess or aumbry was noted in the 'north' wall. The door is in the 'west' gable.

The chapel stands within a slightly raised area, which the Survey took to represent a cemetery earlier than the present parish graveyard: lintel graves and unlined inhumations were noted, and two carved stone crosses recovered from separate graves.

Maughold is thought to have been an early medieval monastery, focussed around a shrine to St Maughold. The site was significant and wealthy enough to be threatened by a raid in 1158, but was saved by a miracle as recorded in the Chronicle of the Kings of Man and the Isles.

762 Purt ny Ceabagh Promontory Fort (0762.00) Guardianship Monument

Iron Age defended promontory.

This headland stands higher than the adjacent land, a natural defence which is augmented by a bank and ditch protecting the interior of the promontory. The bank still rises 2.5m from the bottom of the ditch, despite the former no doubt being eroded and the latter partially filled with debris. The inner height of the bank is 1.3m.

The whole site is covered by vegetation and the interior of the promontory shows no trace of internal structures, nor of a peripheral bank. It has never been excavated.

The site lies just 250m from the defended promontory of Cronk ny Merriu (1068).

765 Arragon Mooar, Claugh Vane (0765.00) Listed Monument

Bronze Age burial mound.

The site has not been excavated, but appears to consist of a burial mound on which are set a ring of large quartz boulders. The monument is classically and prominently located on a ridge rising from Arragon Mooar and extending north-east towards Santon Church.

The mound is about 14m in diameter, and is more than a metre high. The ring of stones is about 6m across, and the area within is slightly sunken as if collapsed, robbed out or eroded.

1064 Langness Point Promontory Fort (1064.00) Listed Monument

Defended promontory.

The end of Langness peninsula contains the remains of a promontory fort of unique form amongst other Manx forts such as Cronk ny Merriu, Cass ny Hawin and Close ny Chollagh.

Enclosures and earthworks can be seen on a series of small islets at the south-western tip of the peninsula. The first of these enclosures stands on the promontory attached to the peninsula. Two sea inlets form a natural ditch, and beyond these a defensive bank stands to a height of 1m. At the far end of this promontory the arrangement is repeated, with another natural ditch and a bank defending the landward side of the first islet. The second islet shows no sign of defence, but the third is protected by another bank. Although not particularly high today, it is quite possible that these banks were once augmented with timber palisades.

There is no evidence for ancient buildings on any of the islets, and the small brick-built structure is associated with mine working in the late 1800s. Copper has been extracted from Langness from probably as early as the Bronze Age, since stone tools, of a type used to break up the ore, have been found throughout the area.

1068 Cronk ny Merriu Promontory Fort (1068.00) Guardianship Monument

Defended promontory. When first surveyed by the Ordnance Survey in 1868, the most obvious features on the site were the large, grass-covered bank, standing 3.5m high and 5m wide, and the less substantial remains of a rectangular building behind it on the promontory. The scale of the bank led to an assumption that it represented a prehistoric burial mound, a belief compounded by its name, which translates as 'hill of the dead'.

Excavation in 1950-51 found that the promontory had first been protected by a timber stockade, which was later replaced by a timber-reinforced earthen rampart. A ditch had also been excavated in front of the bank, to a depth of about 1m below modern ground-level; the ditch was spanned by a causeway at the west end to allow access to the headland. The rampart was further augmented by a timber platform, or raised walkway.

The defensive site so created was considered to be of Iron Age character, though no features of this period were identified within the site. Several residual finds, however, confirm an Iron Age presence.

The interior of the headland is now dominated by a later longhouse which is likely to have disturbed or destroyed most traces of earlier occupation. The longhouse measures 13.5m by 7.5m, with earthen walls 1.5m thick faced inside and out in stone. The walls originally stood to a height of around 1.5m, and probably supported a pitched roof. Two doorways are located opposite each other near the west end, and low stone benches run along both of the long walls and across the western gable. There was little evidence of domestic activity, only rather basic remains of a hearth, and no domestic rubbish. The form of the building thus conforms to a domestic Viking longhouse, while the excavated evidence suggests that it was not permanently occupied.

Several other defended promontories (Cass ny Hawin, Close ny Chollagh and Borrane) have similar buildings within their ramparts, leading to the suggestion that existing promontory forts were reused as part of a 'watch and ward' system of coastal defence and perhaps also to police beach markets.

No dating evidence was found during the excavations but in 1970, a half-penny of Edward I, dating 1280-81, was found in the back-fill of the dig and presumably indicates some occupation of the site after the end of Norse rule on the Island in 1265.

1077 Maughold Head Hillfort (1077.00)

Defended hilltop; cairn; lookout.

This prominent summit is naturally defended by cliffs and steep slopes to the north-east and south-east, and to west and north by an artificial bank. There are signs of a possible entrance at the most westerly point, but it is not entirely clear whether these features represent a truly defended site.

Similarly, the cairn on the summit, which is substantial and more than 10m in diameter, could be funerary or no more than a landmark.

The Castle Rushen Papers contain a document dated 1627 which lists the 'hills of the day watch and the ports of the night watch', from which a watch system was kept around the coastline of the Island from Medieval times: Maughold Head was the point from which a daytime watch was maintained until at least the 17th century.