13 Geology

13.1 Introduction

13.1.1 Since the submission of the previous application for Beaw Field, there have been no changes to the geology baseline and given that the infrastructure of the Consented Development is not changing, there would be no geology effects. The findings of the previous geology assessment therefore remain valid, and the previous geology chapter is set out in full below.

13.1.2 This chapter provides an assessment of the potential impact of the Consented Development upon identified geological receptors. The chapter has been prepared by Wardell Armstrong who have an established track record of providing expert advice and assessment of development proposals and their effects upon geology related matters. The details of the Consented Development are described in Chapter 3: Project Description and the layout of the wind farm and associated infrastructure is shown on Figure 3.1.

13.1.3 The baseline conditions have been considered and the likely environmental impacts of the Consented Development on these receptors have been considered both during the construction and the operational phases of the development. There are no predicted effects upon the geology of the site during the decommissioning phase of the Consented Development, as such, this element of the scheme is not discussed further within this chapter. A qualitative assessment of the significance of the potential impacts has been undertaken using a combination of professional judgement, legislation and other statutory policy and guidance.

13.1.4 Measures to mitigate any negative environmental effects are identified as appropriate before the residual environmental effects are quantified.

13.1.5 For the purposes of this chapter, the Study Area is consistent with the definition in Chapter 1: Introduction, i.e., the areas within the Application Boundary (Figure 1.1).

13.2 Legislative framework

13.2.1 The geological environment in Scotland is afforded protection through key statutes and the regulatory activities of Nature Scot, formerly Scottish Natural Heritage (SNH) and the British Geological Survey (BGS) which are the organisations responsible for the designation and recording of geological sites.

13.2.2 Nationally important geological sites are protected as Sites of Special Scientific Interest (SSSI) designated under the Nature Conservation (Scotland) Act 2004.

13.2.3 Locally important geological sites may be declared as Local Geodiversity Sites (formerly Regionally Important Geological Sites or RIGS). Local Geodiversity Sites are non-statutory areas of local importance for nature conservation and are afforded protection through the local planning system.

13.2.4 The Joint Nature Conservation Committee (JNCC) has been reviewing all types of sites with a geological interest and classed these as Geological Conservation Review (GCR). We have therefore, given equal importance to both geological classifications for the purposes of this EIAR.

13.2.5 The Shetland Local Development Plan (LDP) 2014 was adopted by the Council on 26th September 2014 and is the established planning policy for Shetland. The LDP sets out the Council's land use

strategy which recognises existing developments, promotes sustainable economic growth and conserves Shetland's natural and built environment.

13.2.6 The planning policy within the Shetland LDP relevant to this chapter is Policy NH 6 Geodiversity, which states:

13.2.7 "*Development will only be permitted where appropriate measures are taken to protect and/or enhance important geological and geomorphological resources and sites, including those of educational or research value. Proposals that will have an unavoidable effect on geodiversity will only be permitted where it has been demonstrated that:*

- *The development will have benefits of overriding public interest including those of a social or economic nature that outweigh the local, national or international contribution of the affected area in terms of its geodiversity;*
- *Any loss of geodiversity is reduced to acceptable levels by mitigation, and a record is made prior to any loss."*

Additional guidance

13.2.8 Best practice procedures and mitigation for the protection of the geological environment during general construction works is provided by the following guidance documents:

- Scottish Renewables, Scottish Natural Heritage, Scottish Environment Protection Agency, Forestry Commission Scotland, Historic Environment Scotland, Marine Scotland Science and AECoW (2019). Good Practice during Windfarm Construction (4th Edition).
- SNH (2013). Constructed Tracks in Scottish Uplands (2nd Edition).
- SEPA (2011). Safe storage: Above ground oil storage tanks: PPG2.
- SEPA (2012). Working at construction and demolition sites: PPG6.
- SEPA (2004). Safe storage and disposal of used oils: PPG8.
- SEPA (2009). Pollution Prevention Guidelines: Incident Response Planning: PPG21.
- SEPA (2011). Safe storage: Drums and intermediate bulk containers: PPG 26.

13.3 Methodology

13.3.1 The Study Area assessed by this chapter is defined by the Application Boundary as shown on Figures 13.1 and 13.2. This area was deemed appropriate as the Consented Development will not have any effect on geological receptors beyond the Application Boundary.

Assessment methodology

13.3.2 The method of assessment of the significance of potential effects upon the geological environment takes into account the magnitude of an effect upon the affected receptor and the sensitivity of the receptor.

13.3.3 The magnitude of a potential effect is defined by the degree of material or detectable change experienced by the receptor, ranging from high to negligible. The criteria used to assess the magnitude of effects for geological receptors are defined in Table 13.1

Table 13.1: Magnitude of potential effects

Magnitude	*Definition*
High	Fundamental change to the baseline condition of the receptor such that a substantial loss or alteration of a temporary or permanent nature will occur.
Moderate	Detectable and readily apparent change to the baseline condition of the receptor such that a partial loss or moderate alteration of a temporary or permanent nature will occur.
Minor	Detectable but minor change to the baseline condition of the receptor such that a minor alteration of a temporary or permanent nature will occur.
Negligible	Undetectable change to the baseline condition of the receptor such that no discernible loss or alteration of a temporary or permanent nature will occur.

13.3.4 The sensitivity of a geological receptor is based on a number of factors including its status in terms of statutory or non-statutory designations, its ability to tolerate change before the effects of an impact are realised, the extent or size of the receptor, the degree of interrelation with other receptors and the potential for the propagation of effects. The sensitivity classifications for geological and hydrogeological receptors are defined in Table 13.2. The sensitivity classifications for geological receptors are based on the Earth Science Conservation Classification (ESCC), revised in 2004.

Table 13.2: Sensitivity classifications

Receptor sensitivity	*Criteria*
High	Sites of Special Scientific Interest (SSSI) or National Nature Reserves (NNR) designated on the basis of geological or geomorphological features. European Geoparks.
Medium	Local Geological Sites (LGS) or Local Nature Reserves (LNR) designated on the basis of geological or geomorphological features.
Low	Exposure or extensive geological features.
Negligible	Widespread geological environment insensitive to effect.

Significance criteria

13.3.5 The significance of a potential effect can be defined as a function of its magnitude and the sensitivity of the receptor. A significance matrix developed on this principle is presented in Table 13.3.

Table 13.3: Significance of effect matrix

		Receptor Sensitivity			
		High	***Medium***	***Low***	***Negligible***
Magnitude of effect	***High***	Major	Moderate	Moderate	Negligible
	Moderate	Moderate	Moderate	Minor	Negligible
	Minor	Moderate	Minor	Negligible	Negligible
	Negligible	Negligible	Negligible	Negligible	Negligible

13.3.6 The evaluation of identified effects of the Consented Development is initially based on their significance before any mitigation measures are considered. Effects which are determined to have a significant adverse effect (Moderate or greater) will require mitigation or management with the objective of reducing the magnitude of effect to non-significant.

13.4 Baseline

13.4.1 This section presents a review of the baseline geological environment within the Study Area. Receptors are identified that may be affected by the Consented Development and their sensitivity is classified according to the criteria in Table 13.2.

13.4.2 There are no statutory or non-statutory designations on a geological basis (e.g. SSSI, LGS etc.) within the Study Area.

Superficial deposits

13.4.3 The superficial geology of the Study Area is shown on Figure 13.1 and is described in more detail below.

13.4.4 Superficial deposits within the Study Area generally consist of glacial materials, overlain in many areas by more recent peat deposits. Beach and wind-blown sand deposits are also present near to the Site.

13.4.5 Glacial till is present within the Study Area (and throughout the island) as small pockets of material up to 10m in thickness, rather than a widespread deposit. The glacial till typically comprises a stiff to very stiff, very sandy, gravelly clay. Over most of the area the underlying bedrock is covered by a thin horizon of glacial drift, comprising small stones and soil, thought to be the residue of a thin and impersistent layer of true glacial till.

13.4.6 Mounds of fluvioglacial sand and gravel deposits are present a short distance to the north of the Site to the west of Gossabrough. Such deposits are not common throughout the island.

13.4.7 Peat has been used as a traditional fuel source on the island and recent surveys suggest that unexploited peat deposits over 0.5m in thickness are present over approximately 70% of the island.

13.4.8 Peat is present within the majority of the Study Area; deposits are generally thickest (>2.0m) on the higher ground in the north and also within Hummelton Hollow in the east, between Burravoe and

Gossabrough, (Figure 12.1). Thinner (<0.5m) deposits are present in the lower-lying southern areas of the Site. The average thickness of peat is 1.25m across the Site area (Chapter 12: Soils and Peat).

13.4.9 Several beaches are present around Yell's coastline as well as bars and tombolos, some of which are largely composed of gravel rather than sand. Three major areas of blown sand deposits are present on the island at Breakon on the northern coast, West Sandwick on the western coast and Gossaburgh on the eastern coast, approximately 1km north east of the Site.

Bedrock geology

General

13.4.10 The majority of Yell is underlain by a group of metamorphic rocks known as the Yell Sound Division, comprising of large areas of psammites (a metamorphic rock formed from sandy sediments), quartzites, schists and gneisses. These rocks have been correlated with the Moine rocks of Scotland and are often referred to as Moine rocks themselves.

13.4.11 The gneisses (coarse grained layered crystalline rocks) within the Yell Sound Division were formed as part of the metamorphic process with the degree of gniessification ranging from absent to total. Intrusions of igneous rock originally present within the Moine rocks were also converted to gneiss due to the metamorphism.

13.4.12 Inliers of another distinct type of gneiss are present throughout Yell and due to their similarity with Lewisian gneiss in Scotland are usually referred to as Lewisian Gneiss themselves.

Study area

13.4.13 The bedrock geology of the Study Area is shown on Figure 13 and is described in more detail below.

13.4.14 The north west of the Study Area is underlain by the Herra Psammite, the Arisdale Quartzite and the Mid-Yell and Kaywick Schists. The Arisdale Quartzite is a coarsely crystalline metasedimentary rock formed from a quartz rich sandstone. The Mid-Yell and Kaywick Schists are mica schists; the schistose texture of these rocks making them very flaky in places.

13.4.15 The central part of the Study Area, including the areas north of Hamnavoe and Houlland, and to the west of the B9081 road, is underlain by Lewisian gneiss. These are largely quartofeldspathic gneisses although areas of coarser grained hornblende gneiss are also present, notably forming the higher ground of the Hamars of Houlland.

13.4.16 The Bluemull Sound Fault (see Figure 13.2 Bedrock Geology and Linear Faults for position) runs through the eastern part of the Site area on a north-south orientation avoiding all turbine locations. The area immediately east of the fault is underlain by pelites with bands of quartzite and coarse mica schist. The geology of the easternmost part of the Site is complex in nature but comprises psammites, gneissose psammites and paragneisses.

Past and present industrial mineral extraction

13.4.17 The following section presents an overview of industrial mineral extraction for use as roadstone and aggregate on Yell with particular regard to operations within or in close vicinity of the Study Area.

13.4.18 There are a number of small, abandoned quarries/pits present on Yell, most of which are likely to have been used as highly localised sources of rock or gravel for minor construction purposes. Within the Site area, a number of former small pits have been identified (Technical Constraints Figure 3.11):

- A disused quarry immediately north of Houlland;
- A suspected former pit to the south west of Beaw Field. Not shown on maps but this locality is known to have been subject to landfilling (see Landfilling and Waste Section below);
- A disused pit in the west of the Site adjacent to the B9081 and opposite a fish farm (also now infilled – see Landfilling and Waste Section below) and:
- A small, abandoned gravel pit close to Moss Houll in the east of the Site area adjacent to the B9081.

13.4.19 Many of the metamorphic rocks of Shetland have been used in the past for road stone and aggregate. On Yell, the Lewisian hornblende gneiss has been worked in the past from a quarry at Houlland to supply road stone. This quarry was closed down however, partly due to concerns over dust from local residents and partly due to economics allowing greater use of Scord Quarry at Scalloway on the Mainland for supply of larger quantities of roadstone. More recently, a shattered orthogneiss has been worked at Gutcher Quarry in the north of Yell to produce road stone to improve roads as part of a construction scheme for a new water works at the head of Bastavoe.

13.4.20 Deposits of fluvioglacial sands and gravels are very rare on Yell and the principal sources of sand and gravel has been from accumulations of blown sand and from sea beaches. The area of blown sand at West Sandwick was extracted over a period of approximately 15 years up until 1991 when the resource was essentially exhausted apart from the remaining dune barrier at the back of the beach.

Landfilling and waste

13.4.21 Shetland Islands Council (SIC) is aware of three areas of former landfilling (see Technical Constraints Figure 3.11 for locations) or fly tipping within the Site.

- A former landfill site (Hamnavoe Landfill) operated by Shetland Island Council during the 1970's (SIC Ref. 2E15) is known to be present to the south west of Beaw Field. This landfill has been restored (i.e. capped).
- A former area of commercial fly tipping (SIC Ref. 3A21) within the disused pit in the west of the Site opposite the fish farm. This pit has now been restored with infill of an unknown specification.
- A former area of fly tipping (SIC Ref. 2E9) within the disused gravel pit in the east of the Site near Moss Houll.

Sensitive receptors

13.4.22 To summarise the baseline conditions, the sensitivities of the identified geological receptors have been determined and detailed in Table 13.4.

Table 13.4: Sensitive geological receptors

Receptor	*Sensitivity*	*Rationale*
Superficial glacial till deposits	Negligible	Undesignated features, no exposure, widespread geological deposit type
Bedrock strata	Negligible	Undesignated features, minimal exposure, widespread geological deposit type

13.5 Assessment of impacts

13.5.1 This section identifies the elements of construction and operation of the Consented Development that may lead to effects on geological receptors. Those effects are described, and their significance assessed in accordance with the framework detailed in the preceding sections. Based on the significance analysis, a summary is made of the key effects that will require additional mitigation and management measures.

During construction

Potential effects of project activities

13.5.2 The identified elements of construction of the Consented Development that may lead to effects on geological and hydrogeological receptors are as follows:

- Excavation and removal of superficial and bedrock deposits as part of construction earthworks (including excavation from borrow pits) for turbine foundations and access routes, as well as foundations for the anemometry mast and radio communications tower.
- Storage, distribution and use in construction of fuels, oils and other potentially polluting substances.

13.5.3 The project activities detailed above will potentially contribute to two main types of effect upon geological and hydrogeological receptors:

- Loss of receptor from excavation of superficial and bedrock deposits and:
- Release of potentially polluting substances.

13.5.4 The potential effects relating to the above are discussed in greater detail in the following sections.

Loss of receptor

Excavation of superficial and bedrock deposits

13.5.5 The construction of the Consented Development will involve varying degrees of excavation at borrow pits, turbine locations, access track routes, the compound area, the anemometry mast and the radio communications tower. The locations and extents of these features are detailed on Figure 3.1.

13.5.6 The most significant excavation will take place at the borrow pits, the purpose of which is to provide sources of construction aggregate for the Consented Development. Plans and cross-sections of the borrow pit designs are presented in Figures 3.16 to 3.19.

13.5.7 Excavation will take place along the route of the access tracks to achieve the required levels and to provide a suitable bearing stratum for pavement design. In many areas of the route this will involve the excavation of the glacial till and/or bedrock materials underlying the peat.

13.5.8 Localised excavation of superficial deposits and bedrock strata will take place at the turbine locations to provide a suitable bearing stratum for the turbine foundations and crane pads. Similar excavations for foundations will take place at the locations of the anemometry mast and the radio communications tower.

13.5.9 A degree of excavation may also be required at the location of the Site compound in order to provide a suitably level area.

13.5.10 The removal of superficial deposits from areas within the Study Area represents a partial loss of the receptor, however the total volume of material removed from individual areas will be relatively small due to the overall widespread distribution of these deposits in the Study Area. The percentage of the Site from which superficial deposits may be removed has been calculated as approximately 2% (Chapter 3: Project Description) by area. The magnitude of the effect is assessed to be minor; the sensitivity of the receptor has been identified as negligible; the significance of the effect is therefore negligible.

13.5.11 The removal of bedrock strata from areas during construction represents a partial loss of the receptor, however the total volume of material removed from individual areas will be relatively small due to the overall widespread distribution of these deposits within the Study Area. The percentage of the Study Area from which bedrock strata may be removed has been calculated as approximately 1% by area. The magnitude of the effect is assessed to be minor; the sensitivity of the receptor has been identified as negligible; the significance of the effect is therefore negligible.

13.5.12 The exposure and excavation of bedrock strata may also enhance the earth heritage interest within the Study Area, thereby providing a beneficial impact. The bedrock is typically poorly exposed within the interior of Yell and features such as borrow pits and road cuttings can provide valuable geological data as well as features of interest.

Release of potentially polluting substances

Fuels, oils and other contaminative materials

13.5.13 Construction of the Consented Development will involve the use of various plant, vehicles and machinery that have the potential to shed fuel or lubricating oils through accidental spillage or leakage. During construction, there is the potential for accidental spillage or leakage of other contaminative materials and chemicals such as paint and solvents.

13.5.14 Adherence to the measures and best practice detailed in the Outline Construction Environment Management Plan (OCEMP, Appendix 3.6) will significantly reduce the potential for such pollution incidents to occur. Nevertheless, for the purposes of assessment, any such releases are assumed to be small-scale and highly localised, although repeated releases in the same area could develop into a significant contamination hot-spot over time. The most likely places for such releases to occur would be in the Site compound, designated re-fuelling areas and areas associated with any mobile re-fuelling

plant. Unintentional releases may also come from fuel and lubricating oil storage tanks themselves or chemical storage areas through accidental spillage or leakage.

13.5.15 The uncontrolled release of any such substances has the potential to affect the superficial deposits within the area of release. Should any contamination be retained at shallow depth within the soils in these areas this will have the potential to affect future Site users.

13.5.16 The effect upon superficial deposits at the area of release may cause a detectable and readily apparent change to the localised affected area of the receptor. The magnitude of the effect upon superficial deposits at the Site is assessed to be moderate; the sensitivity of the receptor has been identified as negligible; the significance of the effect is therefore negligible.

Waste management

13.5.17 Construction would generate waste materials including aggregate, sanitary waste and domestic waste (non-hazardous), which would be controlled at the construction compound. If not managed properly this has the potential to affect the superficial deposits by the direct deposition (littering) of the waste materials and the potential introduction of contamination, especially if liquid wastes or sludges are involved. The most likely place for such effects to occur would be in and around waste storage areas and welfare facility areas within the construction compound.

13.5.18 The effect upon superficial deposits may cause a detectable and readily apparent change to the localised affected area of the receptor. The magnitude of the effect upon superficial deposits at the Site is assessed to be moderate; the sensitivity of the receptor has been identified as negligible; the significance of the effect is therefore negligible.

Existing contaminants

13.5.19 The potential for the required cut and fill earthworks associated with the Consented Development to disturb and redistribute known areas of contaminative made ground (i.e., the areas of historic landfill) is considered unlikely, as discussed in the following paragraphs.

13.5.20 The proposed access track route runs adjacent to the former Hamnavoe Landfill (SIC Ref. 2E15) to the south-west of Beaw Field. The alignment and construction design of the access track has however, been determined to require no significant excavation of material at this locality, meaning that any of the landfilled material is unlikely to be disturbed.

13.5.21 The proposed Borrow Pit 1 in the west of the Site is located in close proximity to the restored old pit (SIC Ref. 3A21) in this area. The extent of the restored area has been logged on a GIS database and any planned excavation in this area would adopt a suitable standoff from the old pit such that the materials within would not be disturbed.

13.5.22 No elements of the Consented Development would take place in the vicinity of the fly tipped disused gravel pit (SIC Ref. 2E9) in the east of the Site near Moss Houll.

13.5.23 Based upon the available information regarding the generally previously undeveloped nature of the Site and its remote nature, it is not considered likely that other existing sources of contamination will be present on Site which could be disturbed by the Consented Development. Existing contaminants have not therefore been considered further with regard to potential impacts.

Operation

Potential effect of project activities

13.5.24 The identified elements of the Consented Development during the operational phase that may lead to effects on geological receptors are limited to infrequent major maintenance operations on the installations.

13.5.25 The project activities detailed above will potentially contribute to the release of potentially polluting substances, affecting geological receptors.

Release of potentially polluting substances

Fuels, oils and other contaminative materials

13.5.26 Operation of the Consented Development may involve periodic but infrequent maintenance on the equipment and infrastructure; for instance, this could comprise major component changes on the turbine units (e.g. changing a gear box).

13.5.27 Such operations could involve the use of various vehicles, equipment and materials which may present the potential for the uncontrolled release of fuel or lubricating oils through accidental spillage or leakage.

13.5.28 Any such releases are likely to be small scale, but possibly resulting in a hot-spot of contamination localised to the area of works. The most likely places for such releases to occur would be at the individual turbine locations or substation area.

13.5.29 The uncontrolled release of any such substances has the potential to affect the superficial deposits within the area of release. Should any contamination be retained at shallow depth within the soils in these areas this will have the potential to affect future Site users.

13.5.30 The effect upon superficial deposits at the area of release may cause a detectable and readily apparent change to the localised affected area of the receptor. The magnitude of the effect upon superficial deposits at the Site is assessed to be moderate; the sensitivity of the receptor has been identified as negligible; the significance of the effect is therefore negligible.

13.5.31 Notwithstanding the above, in the event, for example of a major component change being required, proper precautions will be undertaken in order to minimise any associated risks, e.g. induction of all personnel to include emergency spillage procedures, and emergency response equipment to be available including spill kits and oil absorbent pads.

13.6 Mitigation measures

13.6.1 The following section outlines the specific measures recommended to mitigate or manage the potential effects on sensitive geological receptors arising as a consequence of the Consented Development that have been detailed in the preceding sections.

During construction

13.6.2 No effects of the Consented Development during its construction phase with a significance of substantial or moderate adverse were identified as part of the analysis.

13.6.3 In accordance with the assessment methodology, it is therefore considered that no specific mitigation or management measures beyond those identified in the OCEMP (Appendix 3.6) would be required for these effects. The potential impacts of aggregate extraction from borrow pits has also been considered in other EIAR chapters, where relevant.

Operation

13.6.4 No effects of the Consented Development during its operational phase with a significance of substantial or moderate adverse were identified as part of the analysis.

13.6.5 In accordance with the assessment methodology, it is therefore considered that no mitigation would be required for these effects beyond those identified in the OCEMP (Appendix 3.6).

13.6.6 Notwithstanding the above, measures employed to mitigate potential effects upon hydrological receptors will also assist in safeguarding against potential effects on geological receptors. Such measures include good industry practice such as pollution prevention measures detailed in Pollution Prevention Guidelines PPG1 (General Guide to the Prevention of Pollution), PPG21 (Polluting Incident Response Planning) and PPG22 (Dealing with Spills). Further details are presented in Chapter 15: Hydrology and Hydrogeology.

13.7 Residual effects

13.7.1 The potential effects on geological receptors as a result of the Consented Development have been identified. The mitigation and management techniques to lower the significance of these effects have been discussed.

13.7.2 This section assesses the significance of the residual effects of the potential effects on geological receptors following application of the proposed mitigation measures.

During construction

13.7.3 No mitigation and management measures were identified in the assessment as being required during the construction phase of the Consented Development; therefore, the potential effects that could occur during the construction phase are not considered to be significant.

Operation

13.7.4 Some minor residual effects are anticipated through the loss of small quantities of superficial deposits and bedrock strata through the excavation of these materials from borrow pits and along access track routes.

13.7.5 Due to the overall widespread distribution of these deposits in the Study Area, the total volume of material removed from individual areas will be relatively small.

13.7.6 No mitigation and management measures were identified in the assessment as being required during the construction or operational phases of the Consented Development; the potential effects after completion would therefore remain not significant.

13.7.7 Excavation of the borrow pits may also enhance the earth heritage interest within the Site by increasing the exposure of bedrock strata.

13.8 Cumulative impacts

13.8.1 Cumulative effects on geological receptors may occur due to adjacent development affecting the same superficial deposits or bedrock strata. However, it is considered that cumulative effects would only become significant if a number of major developments were to be located either within or adjacent to the Site. Within the Site it is understood that no significant developments are currently proposed.

13.8.2 Due to the ubiquitous nature of the geological receptors, it is considered that the cumulative effect from any additional developments on a minor or moderate scale (e.g., residential development) would be not significance.

13.9 Summary and conclusions

13.9.1 The assessment involved the characterisation of the baseline geological environment, identification of sensitive receptors and the key activities involved in the construction and operation of the Consented Development that may affect these receptors.

13.9.2 The significance of these effects was assessed as a product of the sensitivity of the receptors and the magnitude of the effect upon these receptors if it were to be realised.

13.9.3 The primary receptors at the Site are the superficial deposits (glacial till) and the underlying bedrock strata (metamorphic psammites, quartzites, schists and gneisses).

13.9.4 The key activities and potential effects from the Consented Development would be the excavation of materials during the construction phase leading to a loss of receptor, and also the use of contaminative materials and generation of waste during the construction phase that may lead to the unintentional release of potentially polluting substances.

13.9.5 Mitigation and management measures are described which would reduce the significance of the identified effects where necessary; with appropriate mitigation in place all of the residual effects are considered to be either negligible or minor and not significant.