



Local Development Plan 2030

Technical Supplement 8 Minerals Development

September 2019

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**Mid & East
Antrim**
Borough Council

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1.0 Introduction

Purpose of this document

- 1.1 This technical supplement brings together the evidence base that has been used to inform the preparation of the Mid and East Antrim Local Development Plan (LDP) 2030 draft Plan Strategy. It is one of a suite of topic based technical supplements that should be read alongside the draft Plan Strategy to understand the rationale and justification for the policies proposed within it.
- 1.2 This technical supplement builds upon and updates LDP Position Paper 12 which provides baseline information for Minerals Development and formed part of the evidence base for the Preferred Options Paper (POP). It provides an overview of the regional and local policy context and the natural underground resource profile of Mid and East Antrim and considers development at risk from contaminated land and geohazards. In addition, it demonstrates how the various strands of the evidence base have been considered in the formulation of policies MIN1 – MIN8 in the draft Plan Strategy, including responses to the POP and ongoing consultee and councillor engagement.

Planning and Natural Underground Resources, Contaminated Land and Geohazards

- 1.3 Minerals are an important natural resources which are principally needed for the construction, manufacturing and energy industries. An adequate and available supply of minerals is therefore needed to support sustainable economic growth of the Northern Ireland economy and within local council areas. The minerals industry is recognised in the draft Industrial Strategy as a key economic sector of the Northern Ireland economy, accounting for an estimated 10% of GVA and employing some 84,000 people in total, of which some 40% are in direct employment. The minerals sector is also important for the local economy of Mid and East Antrim. The salt mine at Kilroot near Carrickfergus is the only salt mine in Ireland and valued at £6 million in 2017. There are nine active quarries in Mid and East Antrim. In 2017 the output from the minerals sector in Mid and East Antrim was valued at approximately £15.1m.
- 1.4 Accordingly, the sustainable exploitation of mineral resources in Mid and East Antrim is vital to maintaining a diverse range of jobs, a supply of construction materials for building projects in the Borough and beyond, and meeting the local and regional need for salt which is primarily used for spreading on roads in winter. Through facilitating the ongoing exploitation of these mineral resources in a sustainable manner, the LDP aims to support the delivery of the economic aspects of our Community Plan.
- 1.5 Minerals are natural resources that can only be exploited where they occur. This can present a number of challenges, for example, where the resources are located in areas valued for their landscape and/or environmental significance. The operational activities associated with extraction, the transportation of materials and the legacy of abandoned workings can all have detrimental impacts on local communities.
- 1.6 Land contamination is generally caused by past uses of land and/or human activities and can deprive local communities of a healthy environment and prevent opportunities to enjoy open space and recreation whilst having a negative impact on the environment. It is therefore important to avoid development on land that is contaminated unless this contamination has been rectified and/or mitigated against.
- 1.7 Geohazards in the form of landslides, dissolution and abandoned mines affect the Borough. If these geohazards are not managed effectively they may have a detrimental effect on development both now and in the long term. It is therefore important to consider these geohazards as part of the LDP.

2.0 Policy Context

Regional Policy Context

- 2.1 The regional policy context relevant to minerals development is provided by the Regional Development Strategy (RDS) 2035, various regional planning policy statements, including “A Planning Strategy for Rural Northern Ireland” (PSRNI) and the Strategic Planning Policy Statement (SPPS). The RDS does not provide specific policy aims and objectives for minerals but recognises the importance of the rural area in offering opportunities for quarrying, rural industries and enterprise at appropriate locations.

Planning Strategy for Rural Northern Ireland (PSRNI)

- 2.2 Current operational planning policies for minerals are set out in PSRNI published in 1993. While PSRNI recognises the importance of minerals as a natural resource and the contribution that their exploitation makes to the economy, it also seeks to address, through the planning system, particular difficulties that can be presented. In addition, the PSRNI promotes sustainability in the exploitation of mineral resources. In this regard it recommends that the rate of consumption of finite minerals should be reduced by encouraging the use of renewable and recycled alternatives wherever this is practical and economically viable. It further recommends that the minerals industry should aim for the best use of the total aggregate resources by minimising wastage and avoiding the use of higher quality materials where lower grade materials would suffice.
- While advancing a general presumption in favour of development, the PSRNI states that in considering an application for extraction, account will be taken of the value of the mineral to the economy, the environmental implications and the degree to which adverse effects can be mitigated in relation to the character of the local area.

PSRNI requires that the development of mineral workings have regard to the following policies: -

- **Policy MIN 1: Environmental Protection** - to assess the need for the mineral resource against the need to protect and conserve the environment.
- **Policy MIN 2: Visual Implications** - to have regard to the visual implications of mineral extraction.
- **Policy MIN 3: Areas of Constraint** - to identify areas of constraint on mineral development.
- **Policy MIN 4: Valuable Minerals** - applications to exploit minerals, limited in occurrence or with some uncommon or valuable property, will be considered on their merits.
- **Policy MIN 5: Mineral Reserves** - surface development, which would prejudice future exploitation of valuable mineral reserves, will not be permitted.
- **Policy MIN 6: Safety and Amenity** – to have particular regard to the safety and amenity of the occupants of developments in close proximity to mineral workings
- **Policy MIN 7: Traffic** - to take account of the safety and convenience of road users and the amenity of persons living on roads close to the site of proposed operations.
- **Policy MIN 8: Restoration** - to require mineral workings to be restored at the earliest opportunity.

With regard to geohazards generally, PSRNI Policy PSU10 (Development at Risk) states that “Development will not be permitted in areas known to be at risk of flooding, coastal erosion or land instability”. This policy is also reiterated in the Strategic Planning Policy Statement (SPPS) (paragraph 6.42). With regard to geohazards specifically associated with minerals development, PSRNI Policy MIN6 relates to development in close proximity to active or redundant underground mines and seeks to prevent the erection of buildings in the interest of public safety.

Strategic Planning Policy Statement (SPPS)

- 2.3 The SPPS recognises that the planning system has a key role to play in facilitating a sustainable approach to minerals development. It supports and reinforces the approach of the sustainable development strategy which recognises not only the essential contribution that the minerals industry makes to the economy but also the importance of respecting the limits of our natural resources and ensuring a high level of protection and improvement of the quality of the environment.

The SPPS sets out three regional strategic objectives for minerals development to secure a sustainable approach as follows:

- facilitate sustainable minerals development (including peat extraction from boglands) through balancing the need for specific minerals development proposals against the need to safeguard the environment;
- minimise the impacts of minerals development on local communities, landscape quality, built and natural heritage, the water environment; and
- secure the sustainable and safe restoration, including the appropriate re-use of mineral sites, at the earliest opportunity.

In seeking to meet these objectives, the SPPS states that Local Development Plans (LDPs) should provide a policy framework to address the following matters:

- ensure that sufficient local supplies of construction aggregates can be made available for use within the local, and where appropriate, the regional market area and beyond, to meet likely future development needs over the plan period;
- safeguard mineral resources which are of economic or conservation value, and seek to ensure that workable mineral resources are not sterilised by other surface development which would prejudice future exploitation and;
- identify areas which should be protected from minerals development¹; because of their intrinsic landscape, amenity, scientific or heritage value (including natural, built and archaeological heritage). There should be a general presumption against minerals development in such areas.

The SPPS also suggests that LDPs should, where appropriate, identify areas suitable for minerals development within the plan area. Such areas will normally include areas of mineral reserves where exploitation is likely to have the least environmental and amenity impacts, as well as offering good accessibility to the strategic transport network.

The SPPS states that there will not be a presumption against the exploitation of minerals which are particularly valuable to the economy. However, it also makes clear that in considering a proposal where the site is within a statutory policy area, due weight will be given to the reason for the statutory zoning. The SPPS also states that there should be a presumption against unconventional hydrocarbon extraction otherwise known as 'fracking' until Government is satisfied that there is sufficient and robust evidence on all environmental impacts.

The SPPS also suggests that LDPs should identify areas of the coast known to be at risk from flooding, coastal erosion and land instability where new development should not be permitted.

¹ Normally referred to in Development Plans as 'Areas of Constraint on Minerals Development'

Planning Policy Statement (PPS) 2 – Natural Heritage

- 2.4 The range of policies set out in PPS2 fall to be considered when assessing applications for minerals development falling within areas designated for their natural heritage, biodiversity or landscape importance. Policy NH5 is of particular relevance with regard to proposals for commercial peat extraction, since active peatland in itself is treated as a recognised habitat and feature of natural heritage importance.

Planning Policy Statement (PPS) 21 – Sustainable Development in the Countryside

- 2.5 As most minerals development takes place in the open countryside PPS21 is therefore a consideration when accessing such proposals.

Local Policy Context

Legacy Area Plans

- 2.6 The existing development or area plans that apply to Mid and East Antrim Borough are:
- **Ballymena Area Plan 1986-2001, adopted in 1989**
 - **Larne Area Plan 2010, adopted in 1998**
 - **Carrickfergus Area Plan 2001, adopted in March 2000**
- 2.7 The draft Plan Strategy (paragraph 2.2.3) refers to the somewhat complex situation in regard to the status of the Belfast Metropolitan Area Plan 2015 (BMAP) which included the former Carrickfergus Borough Council area. Whilst the Carrickfergus Area Plan 2001 remains the extant statutory plan for this area, the draft BMAP (2004) as the most recent expression of local planning policy, has also been taken into account in developing the draft Plan Strategy. Whilst the draft Plan Strategy has taken account of the existing Area Plans, it has also been necessary to consider their longevity and the fact that all pre-date the SPPS. However, it is noted that only the Ballymena Area Plan pre-dates the policy framework for minerals development set out in PSRNI.

Ballymena Area Plan 1986-2001

- 2.8 The Ballymena Area Plan 1986-2001 states that extraction activities in the Plan Area, fall into 3 categories – (a) Quarrying of aggregates, (b) open cast working of bauxite, and (c) peat cutting. Crushed rock aggregates represent the bulk of material extracted in the area. Aggregate extraction is concentrated within the Moorfields/Glenwherry area and around Ballylig near Broughshane.
- 2.9 The Plan notes that small quantities of bauxite are extracted under a mining permission at Clinty Quarry, however it is understood that subsequent reclassification of the excavated material as bauxitic clay has removed the need for ongoing permission. Basalt continues to be extracted at this quarry.
- 2.10 The Plan notes that the extraction of peat only occurs on a limited scale and is largely confined to the fringes of the Plan area. Deposits of upland peat occur near Glarryford, Cargan and Glenwherry. Lowland peat occurs to the north and south of Portglenone adjacent to the River Bann. Workable peat deposits tend to be intermittent, small in area and cut privately for use as fuel, although the Plan notes a trend for increased commercial exploitation in association with technical developments in the industry.

- 2.11 The Plan recognises that quarrying activities can cause significant environmental problems, therefore the policy approach is to balance the economic benefits of the proposals with the need to minimise environmental disturbance. While accepting that the location of quarry sites is influenced by geology and proximity to markets, the Plan advises that prominent locations and proximity to residential development ideally should be avoided. Conversely land uses which are incompatible with quarry operations are discouraged in proximity to approved quarry areas, as uses such as housing might prejudice necessary quarry operations and also expose residents to operations likely to cause adverse impact on amenity and health/well-being.

Larne Area Plan 2010

- 2.12 The Larne Area Plan 2010 notes that mineral extraction in the Plan area mostly consists of basalt quarried for road stone and building aggregates at Ballyrickard and Crosshill and Ulster White Limestone, commonly referred to as chalk, quarried at Glenarm and Kilwaughter. The Ulster White limestone formation, by virtue of its purity and mineralogy, is used in a range of manufacturing processes.
- 2.13 The Plan also notes that rock salt is known to underlie coastal areas from Larne town southward into the Carrickfergus area where it has been mined around Kilroot since 1965. The salt beds are thicker and deeper in the area around Larne and they appear to be suitable for energy storage purposes, using solution-mined caverns to hold natural gas, compressed air or hydrogen. The beds become shallower and thinner towards the south where they are accessible for conventional underground salt mining.
- 2.14 The Plan also notes that there are extensive tracts of upland peat bog across the south Antrim Plateau but extraction for domestic fuel is limited in extent compared to other areas of upland peat in Northern Ireland. Machine cutting is not common in the area and is absent from the Garron Plateau.
- 2.15 Policy MN1 designates Areas of Constraint on Minerals Development (ACMD) within the Plan area comprising of one large area and two smaller areas, all within the Antrim Coast and Glens Area of Outstanding Natural Beauty (AONB). These areas are identified as being the most scenically valuable parts of the AONB within the Plan area and include coastal fringes, the glens, the Garron Plateau and areas of woodland and bogland. The ACMD also includes tracts of land falling within broader areas designated for their natural heritage importance (including Special Protection Areas (SPA), Special Areas of Conservation (SAC) and Areas of Special Scientific Interest (ASSI) designations). The ACMD also includes an Area of Significant Archaeological Interest (ASAI) designated by the Larne Area Plan at Knockdhu (Policy MAN EN1). The limestone quarry at Munie Road, Glenarm is the only working quarry within the ACMD. The Plan states that there will not be a presumption against further extension of this quarry but any proposal for its further development will be expected to give full recognition to the landscape sensitivity of the coast and glens and will only be permitted if the Department is satisfied that the landscape will not be adversely affected to any substantial degree.
- 2.16 Policy MN2 states that where hydrocarbon exploration identifies areas where there is potential for commercially viable reserves of oil or gas to exist, applications to drill wells to establish the long term suitability of the site for production purposes may be considered.
- 2.17 Policy MN3 states that proposals for commercial peat extraction from sites which have been declared Areas of Special Scientific Interest (ASSI's) will not normally be approved. In locations outside ASSI's, the Plan states that planning permission for the extraction of peat will only be granted where there is little recognised nature conservation value and where the amenity of the site, particularly within the Antrim Coast and Glens AONB will not be compromised by the operations. The Plan notes that where peat extraction is likely to have a significant effect on the environment, the planning authority may require the submission of an Environmental Statement along with the planning application.

Carrickfergus Area Plan 2001/draft BMAP (2004)/ BMAP (2015) in combination with the Planning Appeals Commission Inquiry report

- 2.18 The Carrickfergus Area Plan 2001 identified Areas of Constraint on Mineral Development, Areas of Potential Subsidence and Salt Reserves. These areas were all carried through to draft BMAP (2004), however the Planning Appeals Commission public inquiry report advised that there was insufficient information and inadequate rationale for retaining and mirroring Areas of Constraint on Minerals Development with other environmental designations. In regard to hydrocarbon exploration the draft BMAP (2004) stated that where this identifies the possibility of commercially viable reserves of gas or oil, proposals to sink wells for the purpose of appraising the nature or extent of the discovery will be considered in the context of the long term suitability of the particular site for production purposes.
- 2.19 The Belfast Metropolitan Area Plan (BMAP) 2015 notes that salt mining has been taking place in the Carrickfergus area since 1851, leaving abandoned mine shafts at several locations within the Borough. The old mines were not developed using present day engineering or safety standards which may have contributed to subsidence in certain locations, particularly where solution mining took place. Current mining activities at Kilroot began in 1965 and use modern engineering standards and techniques, with solution mining no longer being permitted.
- 2.20 BMAP has designated an Area of Salt Reserve to the east of Carrickfergus and to the north of Kilroot. Within this designated area, the Plan states that planning permission, subject to specified exceptions, will not be granted for surface development that would prejudice the exploitation of the proven salt reserves considered to be of particular value to the Northern Ireland economy. In addition, the Plan states that in regard to any future proposals for further extraction of salt at this location, careful consideration will be given to the potential impacts on the stability of the surface lands directly above and surrounding the site. The Plan also notes that the geology of the Borough is such that accumulations of conventional hydrocarbons may occur. Recent exploratory drilling at Woodburn, Carrickfergus, did not result in discovery of commercial hydrocarbons and was plugged and abandoned.
- 2.21 There are no ACMD's designated in the BMAP – Carrickfergus Area. There are however, areas identified as being at risk of subsidence where historic mining works have been carried out. Within these Areas of Potential Subsidence new built development is not permitted.

Mid and East Antrim Borough Council Corporate Plan 2019-2023

- 2.22 Our Corporate Plan sets out the Council's vision, themes and objectives that will shape our work and the services that we provide up until 2023. The aim of the Corporate Plan is to deliver the same long term vision and outcomes for the Borough that are set out in the Community Plan. The key objectives of the Plan are identified under five main themes all of which fall under the wider strategic theme to be a high performing council:
- **Sustainable jobs and tourism.**
 - **Good health and wellbeing.**
 - **Learning for life.**
 - **Community safety and cohesion.**
 - **Our environment.**

Mid and East Antrim Borough Council Community Plan

- 2.23 Our Community Plan – 'Putting People First' was published in April 2017 and covers the period from 2017 to 2032. The vision of the Community Plan is that: *"Mid and East Antrim will be a strong, safe and inclusive community, where people work together to improve the quality of life for all"*. The strategic priorities set out in the Community Plan have been identified through joint working with 12 statutory partner organisations

and informed by extensive consultation with the public and community and stakeholder groups. The strategic priorities are developed around the five key themes that now inform the Corporate Plan.

- 2.24 The Local Government Act (Northern Ireland) 2014 sets out a statutory link between the Community Plan and the LDP, in that the preparation of the LDP must take account of the Community Plan. The strategic priorities of our Community Plan have therefore been taken into consideration in the preparation of the draft Plan Strategy. As work on the LDP progresses, we will seek to deliver on any community planning outcomes where there is an identified spatial land use or local planning policy solution.
- 2.25 There is no specific reference to minerals development in the Community Plan. With respect to land instability and coastal erosion the Community Plan sets out that development should be managed so as to avoid building in areas prone to flooding, coastal erosion and land instability.

Cross Boundary Policy Context

- 2.26 In considering the local policy context, it is important to take account of the emerging LDPs of our neighbouring councils:
- **Antrim and Newtownabbey Borough Council;**
 - **Causeway Coast and Glens Borough Council; and**
 - **Mid Ulster District Council**
- 2.27 Neighbouring Council's Preferred Options Papers, supporting evidence base and published draft Plan Strategies have been taken account of, as these are regarded as the most relevant documents when considering cross-boundary issues. Because Carrickfergus falls within the Belfast Metropolitan Area, there has also been engagement with Belfast City Council and other councils in the Metropolitan area.

Table 2.1: Neighbouring Councils Position on Minerals Development, Contaminated Land and Geohazards

Neighbouring Council	Position
Antrim and Newtownabbey Borough Council	<p>ANBC published its draft Plan Strategy in June 2019.</p> <p>ANBC relevant policies: Policy DM 43 Minerals Development and DM 44 Mineral Reserve Policy Areas.</p> <p>The overall policy approach under DM 43 is to balance the case for mineral development, against the need to protect and conserve the natural and historic environment. The impact of the proposal on public safety, health and amenity are also important material considerations.</p> <p>The overall policy approach under DM 44 is to ensure that the future exploitation of identified mineral reserves is not prejudiced by inappropriate surface development and that development proposed in the vicinity of the reserve is carefully considered, to ensure that it would not be prejudiced by future extraction of the mineral.</p>
Causeway Coast and Glens Borough Council	<p>CCGBC published its POP in June 2018.</p> <p>CCGBC relevant preferred options: Key Issue MN1: Promoting Sustainable Minerals Development – Buffer Zones. The preferred option was to define buffer zones around quarries to exclude inappropriate development.</p> <p>Key Issue MN2: Promoting Sustainable Minerals Development – Areas of Constraint on Minerals Development (ACMD). The preferred option was to designate areas to be protected from mineral development and define other areas elsewhere where mineral development will be acceptable in principle.</p> <p>Key Issue MN3: Development in the Vicinity of Abandoned Mines, Adits and Shafts. The preferred option was to provide policy to restrict development on land known to be at risk of instability.</p> <p>Key Issue MN4: Lignite Resources within the Borough. The preferred option was to retain the existing designation and amend existing policy framework to provide greater flexibility for development.</p>
Mid Ulster District Council	<p>Mid Ulster published its draft Plan Strategy in February 2019.</p> <p>Mid Ulster relevant policies: MIN 1 – Mineral Reserve Policy Areas, MIN 2 – Extraction and Processing of Hard Rock and Aggregates, MIN 3 – Valuable Minerals and Hydrocarbons, MIN 4 – Peat Extraction, MIN 5 – Restoration of Mineral Sites, MIN 6 – Restoration of Mineral Sites.</p> <p>The policy approach is to facilitate appropriate mineral development whilst also protecting important landscapes and areas of nature, scientific, conservation and heritage interest. The strategy is to identify areas where there will be a presumption against mineral exploitation; known as Areas of Constraint on Mineral Development. Within these areas, mineral development will not be permitted except in a small range of circumstances and with certain caveats, including where development will be limited to short term extraction. Mineral Reserve Policy Areas will also be designated where mineral deposits are to be protected. The minerals within these areas will be of economic importance and may well be linked to an ongoing industrial operation. Within these areas, surface development will not be permitted because it would prejudice the future extraction of these mineral deposits. The strategy also adopts a policy on valuable minerals such as metalliferous minerals and hydrocarbons. These policies will facilitate mineral development where appropriate whilst adopting a precautionary approach to the exploration and extraction of valuable minerals by placing the onus on the developer to demonstrate that there will be no significant harm from the development.</p>

2.28 The Council has responded to neighbouring Council's POPs and the draft Plan Strategies for Antrim and Newtownabbey and Mid Ulster as they were published. In addition, the Council is also represented on a number of working groups to discuss cross boundary issues, for example the Metropolitan Area Spatial Working Group and Lough Neagh Forum.

- 2.29 Members of the plan team have also met with officials in the three neighbouring councils during preparation of the POP. In preparation for the draft Plan Strategy, members of the plan team met again in July 2019 with officials in the three neighbouring councils to outline the various broad approaches of the draft Plan Strategy and to discuss cross-boundary issues.
- 2.30 In consideration of neighbouring Councils development plan documents, it is the opinion of this Council that there is no conflict with our draft Plan Strategy, insofar as it relates to Minerals Development.

3.0 Natural Underground Resources, Contaminated Land and Geohazards Profile

Natural Underground Resources

The Importance of Minerals to the NI Economy

- 3.1 According to Geological Survey Northern Ireland (GSNI) the turnover of the NI quarry industry is approximately £650 million, 3% of Northern Ireland's GDP. In a typical year, Northern Ireland's mineral products support²:
- The building of new homes;
 - School building and maintenance programmes;
 - Hospital building and maintenance programmes;
 - Maintenance of road and rail network;
 - Improvements to water and sewage services;
 - The upgrading and maintenance of our airports;
 - Supplies of special sands and aggregates for gardens and parks.
- 3.2 In addition, according to Mineral Products Association Northern Ireland (MPANI) (previously Quarry Products Association Northern Ireland (QPANI)) nearly 14 tonnes of aggregates are needed annually per head of population in Northern Ireland. A typical family indirectly demands three lorry loads of aggregates each year; a new house requires some 60 tonnes of aggregates and the quarry products industry employs around 5600 people in NI. The construction industry, which contributes around 10% of the Province's GDP is completely reliant on mineral products. The Quarterly Employment Survey (QES) produced by the Northern Ireland Statistics and Research Agency (NISRA) in March 2019 estimates the amount of people employed directly in quarrying and mining (including support services) is 1970 and the amount of people employed in the manufacture of mineral products is 4610.
- 3.3 MPANI outline that another economic advantage of quarrying and mining activity is that 75% of the total number of quarries and pits in Northern Ireland are located in areas of targeted social need, thus providing employment opportunities in these areas.
- 3.4 The main source of information regarding minerals comes from GSNI and the Department for Economy (DfE). Traditionally, much of this information was compiled at the regional level and not broken down to district level for reasons of commercial confidence. Statistical information produced by DfE is available up to 2017 in the form of Annual Mineral Statements (www.economy-ni.gov.uk/publications/annual-mineral-statements). The figures indicate that total mineral production in Northern Ireland decreased from their 2007 level of 29.5 million tonnes to 12.7 million in 2017. Sandstone constituted the major volume of extracts, with 3.7 million tonnes produced in 2017. Approximately 3.2 million tonnes of basalt and igneous rock (excluding granite) were produced and 2.6 million tonnes of sand and gravel were produced in the same year. The lower levels of productivity since 2007 most probably relates to the economic recession and subsequent cessation of the building boom period. The decline is particularly evident in the production of sand and gravel, both important components of the construction industry, with a fall in production from 8.1 million tonnes in 2007 to 2.6 million tonnes in 2010.
- 3.5 The 2017 Annual Mineral Statement is based on 90 quarry returns. At Council level, these Statements indicate the quantity of various aggregate types produced by Council area and its selling value. For Mid and East Antrim, the 'headline' findings are:

² Mineral Products Association (NI) Ltd (MPANI) (Previously QPANI) (MPANI represent over 90% of the quarry products industry in Northern Ireland).

Table 3.1: Mineral Production in Mid and East Antrim 2017

MINERAL PRODUCTION MID & EAST ANTRIM 2017			
	Quantity Produced (Tonnes)	Value	Council ranking
Basalt & Igneous Rock (other than Granite)	997,087	£4.59 million	1 st out of 8 listed (Quantity & Value)
Limestone (Combined with Armagh, Banbridge and Craigavon Borough Council)	340,513	£3.88 million	3 rd out of 3 listed (Quantity) 1 st out of 3 listed (Value)
Other³	534,047	£6.62 million	1 st out of 7 listed (Quantity and Value)

Availability of Minerals in Mid and East Antrim

- 3.6 Existing information in relation to mineral reserves within Mid and East Antrim is contained within the general estimates produced by GSNI for County Antrim as a whole. Information on the availability of minerals at county level is derived from the Mineral Resource Map (MRM) produced by GSNI (Appendix A shows that portion of the map covering Mid and East Antrim Council area). The MRM is intended to assist the strategic decision making in respect of mineral extraction and to protect important mineral resources against sterilisation from surface development. It should also be noted that the data depicted on the map relates only to the inferred extent and location of a particular mineral resource. Inferred resources are those defined from geological information and assumed, but not verified with geological continuity. Thus, the inferred boundaries are approximate and only indicate the areas within which potentially workable minerals may occur. It should also be noted that there is no exact information on the amount of permitted mineral reserves i.e. that associated with existing permissions that have yet to be extracted.
- 3.7 There are 2 mineral prospecting licences, 2 mining licences and 1 petroleum licence in the Borough. LON 2/14 is operated by Shackleton Resources and relates to all minerals. IMSL1/15 is held by Islandmagee Storage Limited and relates to salt exploration and drilling for an underground gas storage project beneath Larne Lough. Mining leases ISME 1, 2, 4, 5 and 6 are held by Irish Salt Mining and Exploration and are for rock salt (halite) extraction. Mining Licence PC 1/61 is held by LaFarge Cement and is for the extraction of chalk. PL1/10 is for petroleum exploration. The licence was initially held by InfraStrata PLC and eCORP Oil and Gas UK Limited. Exploration drilling took place in Woodburn Forest near Carrickfergus in 2016, but the well did not encounter any significant amounts of oil or gas. The initial term for this licence was 4th March 2011 to 4th March 2016 with the second term commencing thereafter with a 50% mandatory relinquishment of the licence area. The following interest assignments were approved by DfE on the 10th April 2018 and formally executed by way of a Deed of Assignment dated 10th April 2018.

³ The return includes salt for which MEA is regionally important

Table 3.2: Mid and East Antrim Petroleum Licence

Licence number	Area	Licencee(s)	Licence interest
PL1/10	Central Larne - Lough Neagh Basin	Terrain Energy*	60.00 per cent
		Tudor Hall Energy Limited	40.00 per cent

*denotes company which acts as Administrator and Operator for the Petroleum Licence.

These licence areas are shown in Appendix B.

Total Mineral Production

- 3.8 Information regarding the relative output of Northern Ireland council areas in relation to various types of mineral are taken from the DfE Annual Mineral Statement 2017. Again, figures are approximate and may not reflect the total accuracy of the current position. This is due to the fact that of the 134 quarries and mines who were contacted, 90 responses were received. Also, in some cases figures are combined for reasons of data anonymity. Subject to these caveats, Northern Ireland as a whole produced 12.67 million tonnes of minerals annually in 2017. Mid and East Antrim Borough Council produces approximately 1.87 million tonnes annually, which is 14.8% of Northern Ireland's total production. This places Mid and East Antrim as the 3rd largest overall producer of mineral products relative to the other council areas.
- 3.9 The presence of regionally important salt and basalt resources within the Borough is a key economic strength. Aside from direct employment in quarrying, associated jobs have been created indirectly through concrete production such as in Robinsons Quarry Masters, Moore Concrete Products and Herbison Concrete Products in the Ballymena area and Austin Concrete, Woodburn Concrete and Elite Concrete in the Carrickfergus Area. Such indirect employment has strengthened the manufacturing base in Mid and East Antrim, where this sector now accounts for 21.1% of all jobs in the Borough. This compares to a regional average of less than 11.2% employed in manufacturing (Northern Ireland Neighbourhood Information Service, 2015).

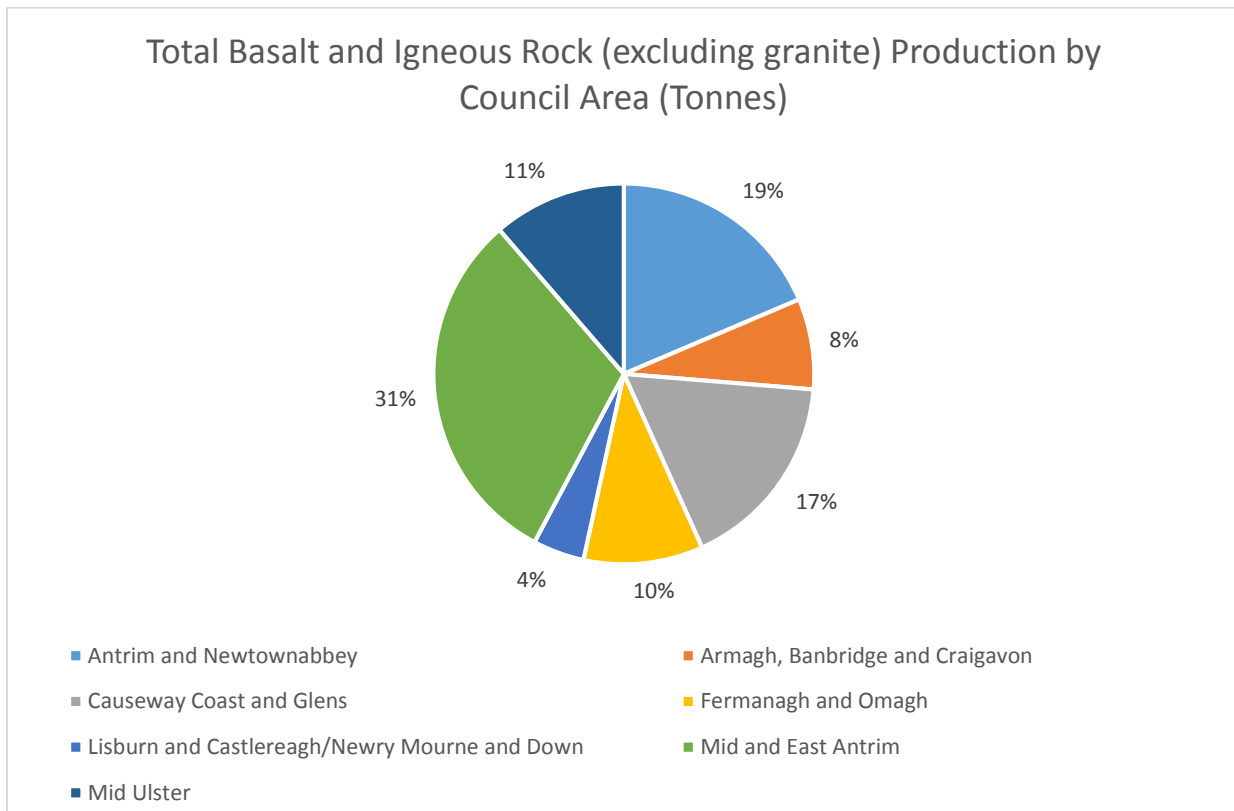
Quarrying

- 3.10 Information obtained from MPANI in August 2017 suggests that there were 9 active quarrying companies and 9 quarry sites in the Mid and East Antrim area directly employing over 40 people, and extracting raw product worth £14 million – after processing MPANI estimate that this is worth around £65m to the district economy.

Basalt and Igneous Rock Production

- 3.11 According to the DfE Annual Mineral Statement 2017 Mid and East Antrim Borough Council produces 31% of all the reported basalt and igneous rock (excluding granite) in Northern Ireland, which makes it the largest producer out of all Council areas. There was 997,087 tonnes produced with a value of £4.59 million. Within Mid and East Antrim Borough Council there was an average of 850,227 tonnes of basalt and igneous rock (excluding granite) produced with an average annual value of £3.83 million between 2012 and 2017. There are 7 such quarries in Mid and East Antrim. The location and nature of all such quarries in Mid and East Antrim are shown in Appendix C.

Figure 3.1: Total basalt and igneous rock (excluding granite) production by council area (tonnes)



Limestone Resources

- 3.12 Limestone is a type of sedimentary rock that is composed mainly of calcium carbonate. As well as being hard and durable most limestone forms bedded deposits that are easy to work with. These properties mean that limestone is commonly worked for construction aggregate and building stone.
- 3.13 According to the DfE Annual Mineral Statement 2017 there were 340,513 tonnes of limestone produced at a value of £3.88 million. For reasons of confidentiality, this figure is split between Mid and East Antrim Borough Council and Armagh, Banbridge and Craigavon Borough Council. Limestone production within these two council areas is less than in Fermanagh and Omagh District Council and Mid Ulster District Council in terms of quantity produced. However, the quality of the limestone and the added value stemming from limestone production in Mid and East Antrim Borough Council is significantly greater than in some areas where more tonnage is extracted. This can also be attributed to the added value accrued through processing. Up until 2001 Ulster White Limestone was worked for cement production at Magheramorne Quarry, south of Larne. Currently, limestone is extracted at two quarry sites in the Borough; at Demesne Quarry, near Glenarm and at Kilwaughter Quarry, west of Larne (Appendix C).

Salt Resources

- 3.14 Rock salt (halite) forms beds of varying thickness and extends from Carrickfergus to Larne. The salt beds are thickest in the Larne area (ranging from 40-400m thick) and thin towards Carrickfergus (9-27m thick). Salt extraction in the area commenced in the mid-19th century at several different mines but currently mining is only taking place at Kilroot which can produce 500,000 tonnes of salt annually. Access to Kilroot mine is by decline and mining is carried out by room-and-pillar methods. Salt is exported from the mine through a deep water berth on the North shore of Belfast Lough, which is connected by conveyor.

- 3.15 In some of the abandoned salt mines uncontrolled brining (solution mining by injecting water into salt beds and pumping out the resulting salt solution) was carried out after extraction had finished. This led to flooding of some of these mine workings. The majority of these mines ceased operations in the 1950s.
- 3.16 According to GSNi recent seismic data indicates the possibility of salt reserves in a wider area.

Peat Resources

- 3.17 Peat deposits are formed from decaying organic matter which accumulates in water saturated environments such as a bog land. Peat depth is variable with an average of 0.5-3m but depths in excess of 5m are not unusual. Peatland covers 12% of the land area of Northern Ireland. It is important in terms of the stability and general well-being of the environment, creating distinctive upland and lowland landscapes, conserving biodiversity and affecting river catchment hydrology. Globally, peat acts as a carbon store therefore helping to mitigate against the adverse impacts of 'greenhouse' gas emissions. The extraction of peat for sale requires planning permission and worked sites should be rehabilitated to a satisfactory standard. It is important to strike a balance which recognises the long established rights of turbary, the continuing demand for horticultural peat while alternatives are under trial, and the need to provide adequate protection to bogs and other peatland sites for their intrinsic value, their biodiversity and for their value as an important ecosystem service.
- 3.18 The bulk of peat extracted commercially is used as a horticultural growing medium. The main areas of commercial peat extraction in the Borough are located to the north-west and south-west of Ballymena. They comprise 3 peat bogs on 3 sites at Craig's Road, Loughbeg and Ballyscullion. There has been a recent approval for peat extraction for 15 years (approved July 2013) at the Loughbeg site (T/2010/0109/F). The southern portion of this site lies within Antrim and Newtownabbey Borough Council. Similarly, the Craig's Road extraction site is on the northern Council boundary and predominantly lies in Causeway Coast and Glen's council area. Appendix D shows peat resources in the Borough and Appendix C shows the location of Peat Mosses in the Borough. Appendix E shows aerial imagery demonstrating the scale of each peat extraction site.

Metallic Minerals

- 3.19 The principal metals found in Mid and East Antrim are iron and aluminium which are associated with the Antrim Lava Group. The area covered by Mid and East Antrim is considered prospective for high value metallic minerals which collectively form the suite known as the platinum group minerals (PGM). Metals of this group are associated with basalt type lava and are known to occur in other regions of the world where conditions promote the accumulation of economic deposits. Results from the Tellus project indicated the potential for PGM and as a direct result of the release of the survey data, Lonmin (NI) Plc applied for prospecting licences over areas of the Antrim Plateau, which is formed from basalt lavas. There are extensive tracts currently in licence in the Borough for precious metal and base metal exploration (LON2/14). Lonmin had been conducting prospecting activity within the council area since 2008, including the collection of soil samples for analysis, carrying out ground based geophysical surveys and an airborne gravity survey and drilling exploration boreholes. All activity had been carried out in accordance with the terms of the DfE licence, with the permission of landowners and, where required, the permission of the Department for Infrastructure (DfI). Recently however, Lonmin have ended exploration in Northern Ireland and Shackleton Resources have taken this licence over. Because of the probable style of the deposit, the low impact exploration process is likely to extend beyond the end of the plan period. According to DfE, any economic discovery leading to exploitation, would most likely result in an underground mine rather than a surface open pit operation. It should be noted that despite being considered prospective there is no guarantee that an economic deposit will be discovered. Ongoing exploration techniques are currently focused on the analysis of data and information that have been collected to date, in an attempt to identify smaller target areas for further detailed exploration techniques.

Iron

- 3.20 Alteration has resulted in an iron-rich laterite containing at least 30% iron oxide and 5% titanium oxide. Iron ore beds are commonly sub horizontal with a thin (circa 30cm higher grade layer overlaying a thicker lower grade zone (up to 2m). Higher grade contains 30-60% total iron oxides while the lower grade ore is typically about 25% iron oxides. The deposits were worked in open-cast/room and pillar underground operations and a cumulative production of 5 million tonnes is reported. The main iron ore mining districts within Mid and East Antrim are in Glenravel, Newtowncrommelin, Cargan, Ballylig, Carnlough and Shane's Hill all of which are inactive.

Aluminium

- 3.21 In County Antrim as a whole there are estimated reserves of 700,000 tonnes of bauxite which is the principal ore of aluminium. A number of regional assessments of the bauxite potential of inter-basaltic rocks have been undertaken which indicate that County Antrim bauxite is highly variable in composition and some high grades (excess of 60% aluminium oxide) are reported. Samples containing in excess of 50% aluminium oxide with low silica and iron would generally be considered metallurgical grade. Given the abundance of low-cost, high grade bauxite available from other countries, GSNI consider that the County Antrim deposits are not economically viable at the present time.

Precious Metals (Gold, Silver, Copper and Barytes)

- 3.22 Despite having one live prospecting licence, current knowledge does not indicate any substantial amounts of precious metals in the Borough.

Hydrocarbon Resources

Conventional Hydrocarbons

- 3.23 Exploration for gas in Northern Ireland began in 1965 and to date it is yet to be discovered in commercial quantities. According to GSNI the hydrocarbon potential of most sedimentary rock basins in Northern Ireland has yet to be fully tested and so they remain as "prospective".
- 3.24 One prospective area lies within Mid and East Antrim and comprises conventional reservoirs in Permian and Triassic (Permo-Triassic) aged rocks beneath Lough Neagh and the Antrim Plateau.
- 3.25 Carboniferous-age coals and shales are also likely source rocks for oil and gas in the Larne basins. Likewise, the younger Triassic-age Sherwood Sandstone, along with Permian-age sandstones, form potential reservoir rocks, whilst the overlying Triassic Mercia Mudstone Group is likely to provide a good seal for any hydrocarbons trapped in the underlying sandstone.
- 3.26 Until recently, InfraStrata PLC had a petroleum licence (PL1/10) for the exploration of petroleum in the Central Larne, Lough Neagh basins and in the area around Carrickfergus/Woodburn forest. This licence has now been taken over by Terrain Energy and Tudor Hall Energy Limited. Their exploration activity is targeting conventional oil and gas in porous sandstone reservoirs.
- 3.27 There is current planning permission for a natural gas storage facility beneath Larne Lough. The approved development allows for storage for 500 million cubic metres of natural gas in caverns beneath Larne Lough. This is held by Islandmagee Storage Limited. There is also a more recent permission for an Air Pollution Control Residue (APCR) Recovery Facility at a 93.2 ha sub-surface site deep underground within the salt mines in Carrickfergus. This is held by Irish Salt Mining and Exploration Co Ltd.

Unconventional Hydrocarbons

- 3.28 Shale gas is extracted directly from mud rocks and shales which have previously been considered too impermeable to allow economic recovery of gas. It can be extracted using specialized drilling and production techniques called “hydraulic fracturing”. There are no known unconventional hydrocarbons resources within the Council area and all exploration to date has been for conventional oil and gas deposits.
- 3.29 Where certain circumstances permit, coalfields may be a source for alternative fossil fuels, including hydrocarbons. In order to obtain these resources, technologies different from that of conventional hydrocarbons must be used.
- 3.30 Methane from coal includes gas recovered from active Coal Mine Methane (CMM) and Abandoned Mine Methane (AMM) as well as methane recovered from undistributed coal seams (Coalbed Methane). Underground Coal Gasification (UCG) involves combustion of underground coal seams in situ to produce synthetic gas (Syngas).
- 3.31 Coal mining in County Antrim largely ceased in the mid-20th century. As there are no active coal mines in Mid and East Antrim there are no current CMM resources. Further, AMM prospects are limited principally by the extent to which the abandoned mines have been flooded by groundwater and there is considered to be little potential at present. Additionally, the thinness of coal seams coupled with the shallow depth, also precludes the seams from meeting the criteria for UCG.
- 3.32 GSNI have identified that there are potential hard coal resources in the Larne basin and beneath the Antrim Plateau. However, the potential of these resources as a source of alternative fossil fuels have not yet been confirmed.

Geothermal Resources/Energy

- 3.33 Geothermal energy is a low carbon sustainable energy resource. Geothermal energy / resources are derived from naturally occurring heat from rocks or groundwater (geothermal aquifer) at depth. According to GSNI one borehole (Larne No. 2) has been drilled in County Antrim with the specific aim of assessing geothermal potential. The temperature at 2880m was 87.8 degrees centigrade. Depending on the depth of the aquifer, it is expected that at depths of 2500m water would be between 65-85 degrees centigrade and at 5000m between 115 and 150 degrees centigrade.
- 3.34 Whilst some exploration methods such as deep drilling are similar to those including hydrocarbons, actual development scenarios can be somewhat different in terms of character, size and impact. This may be particularly the case with developments utilizing energy at shallow levels via heat pumps or exchangers.
- 3.35 Whilst there is potential in the Borough, to date there has been no significant active geothermal exploration.

Groundwater

- 3.36 Groundwater can be found beneath most parts of Northern Ireland and forms an integral part of the water cycle. It is contained within geological deposits beneath the ground with the water stored in pore spaces between mineral grains and/or fractures and cracks in the rock itself. Generally, groundwater in its natural state is of good quality as the rocks and soils it moves through act as filters. Its quality can be affected by various factors such as the over-application of nitrates and pesticides, leaks from hydrocarbon storage tanks, contaminated land drainage, or poorly sited, or constructed, septic tanks.
- 3.37 Generally the quality of groundwater in Mid and East Antrim is good, being much like rainwater, which indicates that it hasn't been in the ground for prolonged periods. The predominant basalt bedrock is highly fractured making it a moderately productive aquifer. Areas around Larne, Carrickfergus, Glenarm and

Carnlough have instances of highly productive aquifers. Appendix F shows the groundwater potential in Mid and East Antrim.

- 3.38 According to GSNI there are 241 identified springs/boreholes in the Borough. However, it should be noted that this figure is not necessarily fully accurate as GSNI rely on public notification. All abstractions of groundwater over 20 cubic metres per day require an abstraction license from NIEA to operate.
- 3.39 Utilising groundwater supplies is particularly important for some people living in the countryside in those rural areas where connection to a water main is not feasible. Groundwater can also be used to support the agricultural industry and it provides a ready and easily accessible source of water for farmers. It is therefore necessary to maintain and enhance the quality of groundwater.
- 3.40 Groundwater is also an important environmental resource that supports river flows and ecological diversity in rivers, lakes and wetlands. High quality groundwater will therefore help to support healthy ecosystems and wildlife.

Contaminated Land

- 3.41 Land contamination is generally caused by past uses of land and/or human activities. Poorly-regulated industrial and waste disposal activities are the most common sources of contamination. Contaminated land can deprive local communities of a healthy environment and prevent opportunities to enjoy open space and recreation. It can also accentuate environmental damage and impact adversely upon biodiversity. It is therefore important to identify risks and ensure measures are put in place to enable land to be “suitable for use”, before consent is granted for new development through the planning system. The potential for residential development to take place on contaminated land has probably increased since the introduction of the original Regional Development Strategy in 2001. This is due to the priority given to promoting housing development on previously used brownfield sites in urban areas. Potentially contaminated sites can be identified using the NI Landuse Database. Any planning applications for contaminated sites need to be accompanied by a preliminary risk assessment report which will include a desk study with information on historical uses of the site and environmental setting. Appendix G, H and I show potentially contaminated sites in Ballymena, Larne and Carrickfergus.

Geohazards

- 3.42 There are 3 main types of geohazard which can pose risks to development. The first is land instability associated with geology. The instability of land can be hazardous and landslides occur in a number of different geological settings in Northern Ireland. In certain circumstances they constitute significant geohazards. Landslips and associated ground instability are common features around the edge of the basalt plateau in Mid and East Antrim and the steep sided glens. According to GSNI the majority of the Mid and East Antrim coastline is prone to landslides. For example, the Coast Road and the Black Head Path have experienced landslides and subsequent closures in recent years. The overall landslide hazard along a section of the east Antrim Coast was assessed in research carried out by the British Geological Survey (BGS) in 1998 on behalf of GSNI. Geological and engineering geomorphological mapping techniques were used together with aerial photographic interpretation and an understanding of landslide processes to categorise the landslide types. Mass Movement geology produced by GSNI is shown in Appendix J. Mass movement deposits are primarily superficial deposits that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground. It is important to note that this map should only be used as a guide as to the potential hazard caused by ground instability. GSNI has not always mapped mass movement deposits and they may occur in places where none are mapped. Even on maps where landslips are recorded it is impossible to be sure that all occurrences were found. Conversely, some of the previously recorded areas could now be in a state of equilibrium.

- 3.43 The second type of geohazard is compressible ground. This can take several forms. Northern Ireland Water have reported probable occurrences of dissolution within the salt beds at Woodburn and have also noted the potential for dissolution to occur in the south east of the council area. Dissolution is the process whereby water dissolves salt and hence can cause unstable land above. This has the ability to cause problems for development and also disruption to the infrastructure network. Compressible superficial deposits may also cause risk to development. These include areas of soft alluvium and peat in river valleys and inter-drumlin hollows, and peat in upland areas. In coastal areas estuarine and raised marine deposits are also compressible. These compressible deposits require consideration in the design stage of any development. Inland areas such as Sallagh Braes, Knockdhu and Scawt Hill are also prone to landslides. The majority of this geology is located in the east of the Borough.
- 3.44 The third type of geohazard is abandoned mine workings. The exploitation of natural resources through underground mining has left a legacy of surface instability above disused workings. This in turn poses serious development risks. The existence of abandoned mine workings are a significant consideration in relation to planning and environmental protection. There are 492 known abandoned mine workings in the Borough including abandoned mine shafts (vertical entrances) and mine adits (horizontal mine portals) which lead to extensive underground works. Additionally, there are a number of collapsed mines where known ground subsidence has taken place (Appendix K map). Collapsed mines are centred mainly but not exclusively around Carrickfergus and north of Cargan. Public safety surrounding these abandoned mines is of vital importance as is the upkeep of the security of closed mines. All historic mine sites in Northern Ireland classified as abandoned are vested in DfE and are managed by the Northern Ireland Mines Oversight Committee (NIMOC). Development near to, or on top of old/current mineshafts needs to be carefully considered due to the fact that they may be at risk of subsidence or collapse. The draft Belfast Metropolitan Area Plan (2004) (BMAP) has defined several Areas of Potential Subsidence in Carrickfergus where new built development is not permitted. These areas are shown in Appendix L.

4.0 Preferred Options Paper

- 4.1 Council published its Preferred Options Paper (POP) in June 2017. The main purpose of the POP is to inform the next stage in the LDP process, i.e. the Plan Strategy.
- 4.2 Building on the emerging evidence base⁴, the POP identified some 36 key strategic planning issues relevant to Mid and East Antrim, set out alternative options for addressing most of these key issues, and highlighted Council's Preferred Option. The POP also included an initial policy review of the operational policies contained in the suite of Planning Policy Statements (PPSs) published by the former Department of Environment (now DfI), also taking account of the Strategic Planning Policy Statement (SPPS).
- 4.3 The POP was subject to 12 weeks public consultation which resulted in 132 responses from members of the public and statutory consultees. A public consultation report on the POP was published by Council in November 2017.
- 4.4 The POP identified two key issues in relation to minerals development. Key Issue 12 addressed the need to balance the need for minerals development with the need to safeguard landscape and environmental assets. The POP proposed a Preferred Option to safeguard mineral resources of economic or conservation value e.g. by allowing for the expansion of existing quarries, and retain the existing designated Area of Salt Reserve. There would be a presumption in favour of minerals development within designated Mineral Reserve Areas and other areas identified as suitable for minerals development. However, there would be a presumption against minerals development within areas designated for their landscape and/or environmental/heritage significance or at least within the majority of their extent e.g. within existing, expanded or new Areas of Constraint on Minerals Development (ACMD). Elsewhere proposals would be determined against existing or amended policy on a case-by-case basis.
- 4.5 The majority of public responses supported the preferred option (Key Issue 12) of having Areas of Constraint on Minerals Development (90%) and Mineral Reserve Areas (84%), whilst applying existing or amended regional policy elsewhere. The statutory consultees were also in broad support of the preferred option.
- 4.6 Key Issue 13 addressed the need to consider public safety where new development is exposed to potential risk from geology and associated with potential subsidence and the effects of land instability. The Preferred Option also proposed to retain the existing BMAP Areas of Potential Subsidence within the former Carrickfergus Borough and retain Policy CE 06 (which sets out a presumption against development). Also, assess if there are any other known areas of potential subsidence within the Borough that should be identified. Also, rely on existing Policy PSU 10 of PSRNI to prevent development in all areas known to be at risk from land instability – including from mining, coastal erosion, landslides and other relevant causes.
- 4.7 In relation to Key Issue 13 the majority (92%) of public responses supported the preferred option of retaining the Areas of Potential Subsidence from BMAP and accessing other areas that may be prone to instability. The statutory consultees also broadly supported the preferred option
- 4.8 In addition to these Key Issues, the POP included a review of existing minerals policies and made recommendations as to whether to bring these policies forward, with or without amendments. (Refer to Appendix N).
- 4.9 For further details on the main issues raised by respondents to the POP consultation and Council's considerations, refer to the POP Public Consultation Report, November 2017, available at https://www.midandeantrim.gov.uk/downloads/POP_Public_Consultation_Report.pdf.

⁴ A series of 14 topic based position papers informing the POP, plus our annual housing monitor and bi-annual industrial monitor are available on the Council website.

5.0 Consultee and Councillor Engagement

- 5.1 In order to meet the requirements set out in the Planning Act (Northern Ireland) 2011 relating to the need for the Plan Strategy to take account of the RDS , other policy and guidance issued by the Department and other relevant government strategies and plans; Council has engaged key consultees representing relevant central government departments and agencies. Representatives from relevant Council departments have also been engaged to ensure that due account has been taken of Council's Community Plan, as well as other Council strategies and initiatives. This engagement was undertaken by way of a series of eight 'Project Management Team' meetings held between April 2018 and April 2019 and has had a significant influence on the development of the strategic policies and proposals.
- 5.2 The Planning Act requires the Plan Strategy to be adopted by resolution of the Council, following approval by DfI. Accordingly, Elected Members have also been engaged in the development of draft Plan Strategy, to ensure that the document is generally aligned with Council's strategic priorities. This engagement was facilitated through a series of six councillor workshops held between November 2018 and March 2019.
- 5.3 The draft Plan Strategy Minerals Development policies were presented at the Project Management Team meeting held on 8 May 2019 and the Councillor workshop held on the 14 March 2019. No major concerns were expressed at these meetings, but minor amendments were made to the strategic subject policies following comments made at, or subsequent to, these meetings.

6.0 Draft Plan Strategy Policy Approach

- 6.1 Mineral extraction for aggregates, largely basalt and limestone, is an indigenous industry within Mid and East Antrim Borough, which along with salt extraction, makes an important contribution to the local economy. Although it is not possible to quantify the precise amount of such aggregates required over the Plan period up to 2030, there will be a need to ensure that supplies of raw materials are provided in pace with any economic growth that occurs in the Council area and other parts of Northern Ireland and potentially beyond. Thus, subject to environmental, amenity, safety and other relevant considerations; the LDP should aim to accommodate any necessary expansion of existing quarries, where sufficient information is provided by the operator and then considered in the context of a wider evidence base. Given the location of most existing quarries largely outside the Antrim Coast and Glens AONB and nature conservation designations such as SPAs, SACs, Ramsars and ASSIs, and the general extent of potential resources as indicated in the MRM; it would seem at this relatively early stage in the Plan process, that there is relatively little conflict in this regard. To date there has been no identified need for new workings.
- 6.2 Ultimately, and in line with Council's Preferred Options Paper (POP), it will be the aim of the LDP to adopt a Plan led approach that will identify Mineral Reserve Areas and Areas of Constraint on Mineral Development. This approach is considered the most appropriate in meeting the SPPS regional strategic objective to "facilitate sustainable minerals development through balancing the need for specific minerals development proposals against the need to safeguard the environment". However, this approach needs to be informed by a robust evidence base which is currently lacking and which will not be substantially addressed by the DfE Annual Minerals Statements (as referred to previously). The purpose of these mineral statements is limited to providing information on the tonnage extracted and its value. However, DfE has indicated that there needs to be a more comprehensive and clearer understanding of both the supply and the demand for mineral products across Northern Ireland and beyond to properly inform LDP minerals policies and proposals, particularly in relation to the designation of areas seeking to safeguard mineral reserves and the defining of areas of constraint. To this end, a cross-Council Minerals Working Group has been established with representatives from DfE, DfI, Councils, and the industry with a view to gathering the necessary evidence base to assess supply and demand and to inform LDPs. Pending the outcome of this initiative, Council regards it as premature to proceed with the preferred approach as outlined above, at this stage in the Plan process. Accordingly, the draft Plan Strategy will seek to ensure that a fit for purpose planning policy framework is brought forward for the assessment of minerals development proposals on a case by case basis. The case for introducing Mineral Reserve Areas and designating additional Areas of Constraint on Mineral Development will be reassessed at Plan Review stage, when it is anticipated that the necessary evidence base will be in place.
- 6.3 In regard to minerals which are of particular value to the economy; the draft Plan Strategy aligns with the SPPS, in adopting a generally positive approach to facilitating ongoing exploration activities. DfE has indicated that all such exploration activities are at an early stage in MEA, meaning that there is not likely to be any exploitation of high value resources over the Plan period. Given these circumstances, it is also considered appropriate to delay the potential introduction of spatial policy areas in the LDP until Plan review stage. The Plan will however bring forward policy to enable any economically viable proposals which may come forward in the interim period to be properly assessed. GSNI/DfE will continue to provide advice in this regard so as to inform the LDP over the longer term. Given these circumstances and taking account of the SPPS statement that "there will not be a presumption against their exploitation in any area"; the draft Plan Strategy has not generally precluded such development. However, the one exception relates to four Special Countryside Areas (SCAs), which also in line with the SPPS, have been designated on the basis of the quality of the landscape and their unique amenity value. Within, these areas there is a presumption against all development unless it meets one of the prescribed exceptions (Strategic Proposal CS2 refers). Accordingly, minerals development will only be permitted if it is of such national or regional importance, so as to outweigh any potential adverse impact on the SCA. Within other designations, and again in line with the SPPS, the case for exploitation of valuable minerals will be weighed against the rationale underpinning

the designation and the impact of the specific scale and nature of the extraction proposals upon the integrity of the designation.

- 6.4 The draft Plan Strategy is therefore largely focused on the strategic planning policies for minerals development that will provide a framework for decision making through the development management system. In doing so full account has been taken of the need to update or amend any of the existing operational policies currently contained in PSRNI so as to align as closely as possible to the thrust of the SPPS in regard to mineral development.
- 6.5 In regard to development at risk from contaminated land and geohazards the draft Plan Strategy approach embraces the following elements:
- Provide strategic policy (similar to that set out in PSRNI Policy PSU10 to prevent or manage development in areas of known risk of land instability and coastal erosion and flooding. Where such areas are known and identified by competent authorities, they will be shown in the LDP.⁵
 - Provide strategic policy (similar to that set out in PSRNI Policy MIN 6) to prevent or manage development in proximity to active or abandoned/redundant underground mines. Where such mines exist within or close to settlements, it may be possible to define areas of potential subsidence (similar to BMAP 2015 in Carrickfergus) in consultation with GSNI at Local Policies Plan stage.
 - It is considered that the management of development on, or close to, contaminated land is best addressed through the development management systems, as there will usually be site specific solutions or mitigation measures available.

⁵ Flooding is dealt with separately in the draft Plan Strategy. Refer to Technical Supplement 12 and Chapter 9 of the draft Plan Strategy.

7.0 Soundness

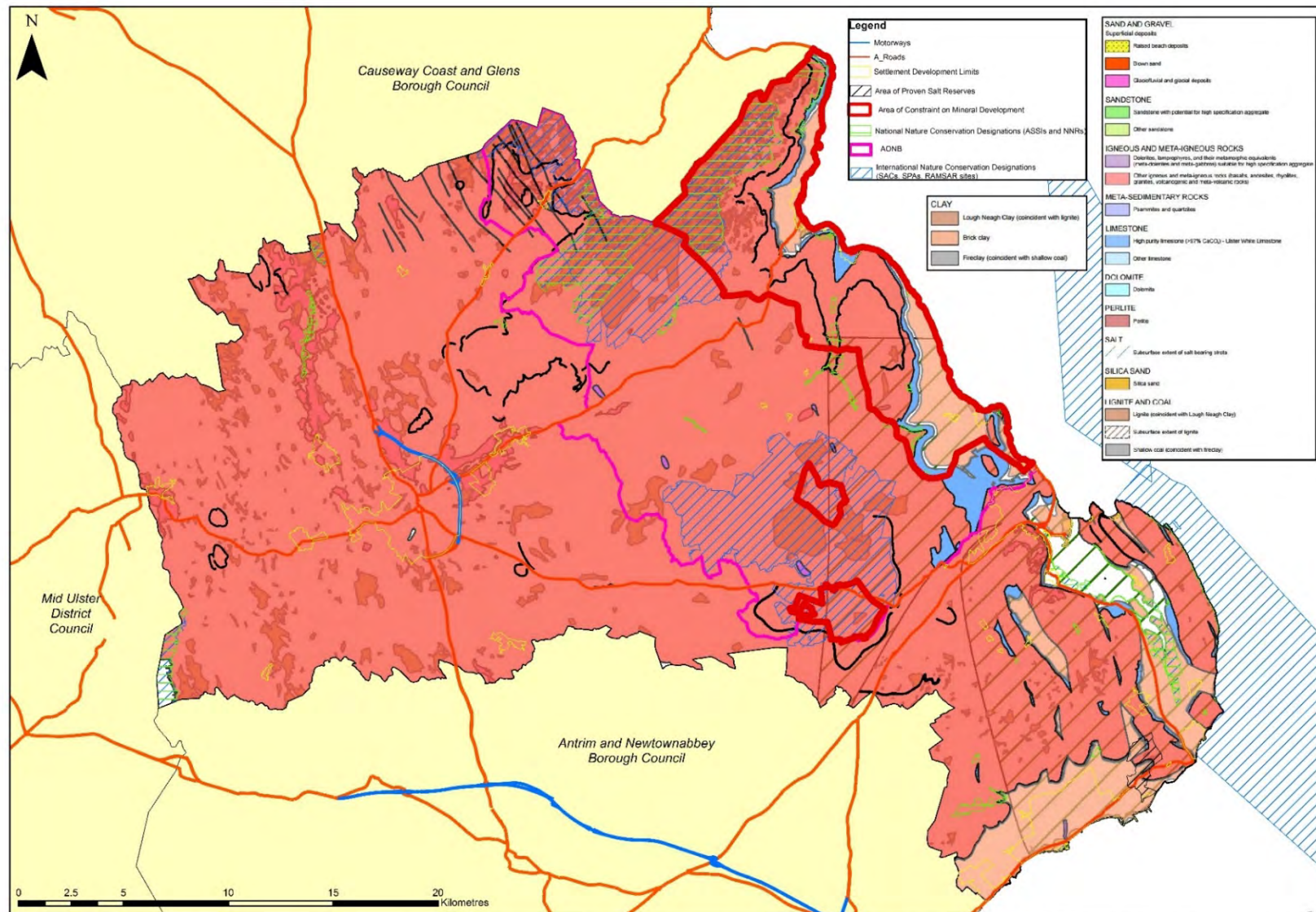
- 7.1 The draft Plan Strategy has been prepared so as to take due regard to meeting the tests of soundness as set out in the DfI Development Plan Practice Note 6: Soundness (Version 2, May 2017). The draft Plan Strategy insofar as it relates to the strategic policies and proposals relating to minerals development and land instability is regarded as sound because it meets the various tests of soundness as summarised below.

Table 7.1: Consideration of Soundness

Procedural Tests	
P2	The minerals development policies and land instability and coastal erosion policy as proposed in MIN1 to MIN8 and CS9 have evolved from the POP and POP Consultation Report as described in Section 4.0 of this document.
P3	The minerals development policies and land instability and coastal erosion policy have been subject to Sustainability Appraisal. Further details are included in the Sustainability Appraisal Report.
Consistency Tests	
C1	The RDS does not provide specific policy aims and objectives for minerals development or land instability and coastal erosion but recognises the importance of the rural area in offering opportunities for quarrying, rural industries and enterprise at appropriate locations and also the importance of mitigating coastal erosion. Refer to Section 3.0 which demonstrates the importance of the minerals development sector in Mid and East Antrim and sets out information about land instability for Mid and East Antrim.
C2	The minerals development policies and land instability and coastal erosion policy have taken account of our Community Plan, particularly in relation to creating sustainable jobs and protecting our environment.
C3	The minerals development policies and land instability and coastal erosion policy have taken account of the SPPS, particularly paragraph 6.148-6.167 and 6.42 and 6.46. Regard has also been had to PSRNI (Minerals), PPS21 Sustainable Development in the Countryside and PPS2 Natural Heritage.
C4	The minerals development policies and land instability and coastal erosion policy have taken appropriate account of the existing development plans relating to minerals development within Mid and East Antrim. Refer to paragraphs 2.6 - 2.21 of this document.
Coherence and the effectiveness tests	
CE1	The minerals development policies and land instability and coastal erosion policy have taken account of the emerging LDP's of our three neighbouring Councils and they are not considered to be in conflict with them. It is noted that the current lack of robust information on regional supply and demand for aggregates affects all councils. Refer to paragraphs 2.26 – 2.30 of this document.
CE2	The minerals development policies and land instability and coastal erosion policy are based on the best available evidence, including consultation with DfE/GSNI and stakeholders within the sector. However, Section 6.0 of this document refers to the lack of evidence in regard to regional supply and demand factors at this time. Accordingly, Policy MIN4 (Areas of Constraint on Mineral Development) is based largely on these designations as defined in the Larne Area Plan 2010. There is a commitment to review ACMDs and to consider the designation of Mineral Reserve Areas, when sufficiently robust information is made available.
CE3	The Monitoring Framework within Technical Supplement 1 does not include any indicators in relation to minerals development or land instability and coastal erosion. It is anticipated that the ongoing work of the Minerals Forum coupled with ongoing engagement with operators will allow meaningful indicators to be put in place in the future. In regard to geohazards (land instability and coastal erosion), indicator 30 commits to monitoring planning decisions in areas of human risk of coastal erosion or land instability. However, in the absence of robust information, there are no targets or triggers at this stage.
CE4	Minerals development provision can be reviewed at Plan Review stage, with potential for additional areas to be zoned or existing areas to be de-zoned to take account of changing circumstances. There will be flexibility for the Local Policies Plan to zone and protect specific areas and sites provided this is confirmed sufficiently in advance.

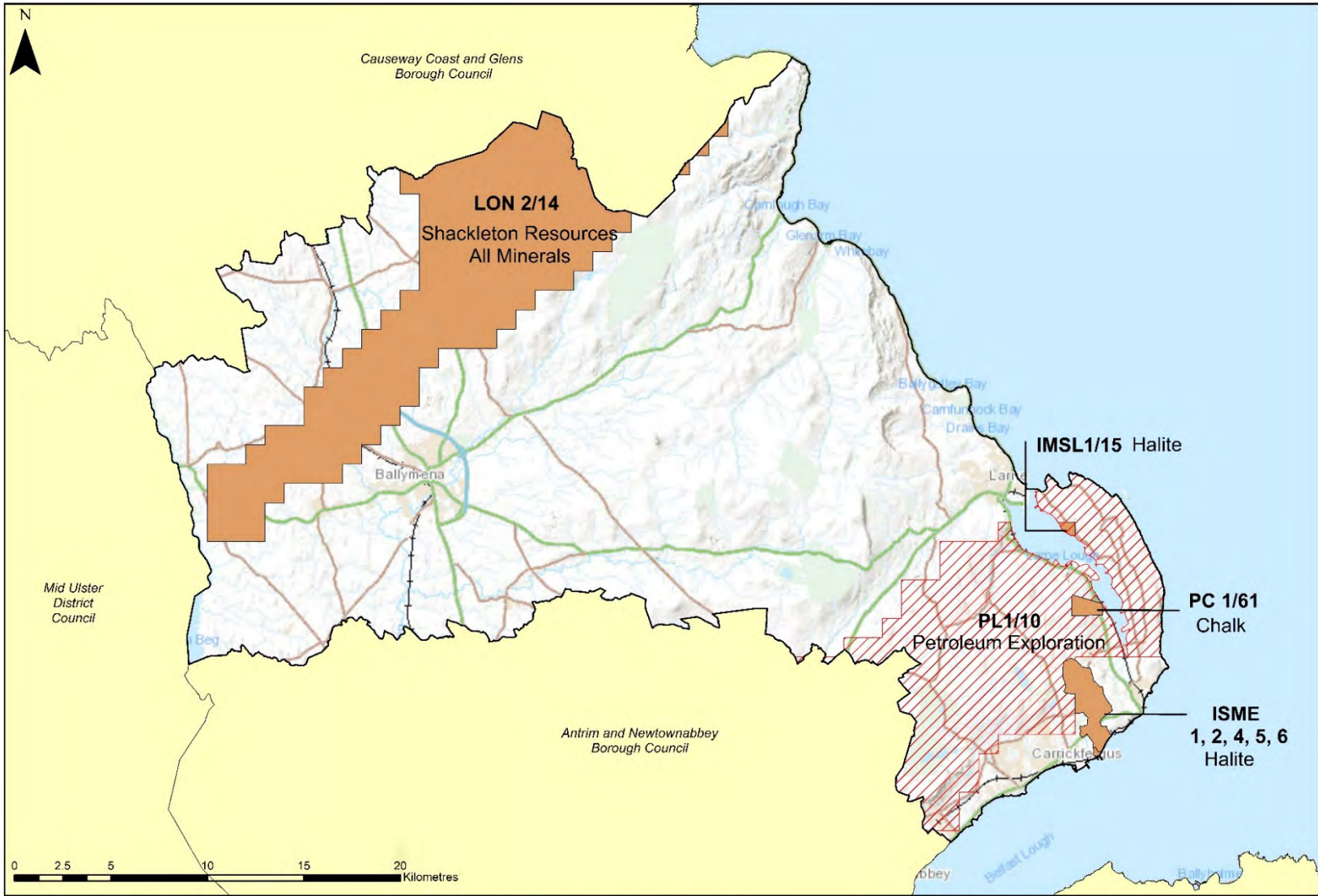
APPENDICES

Appendix A: Mineral Resource Map



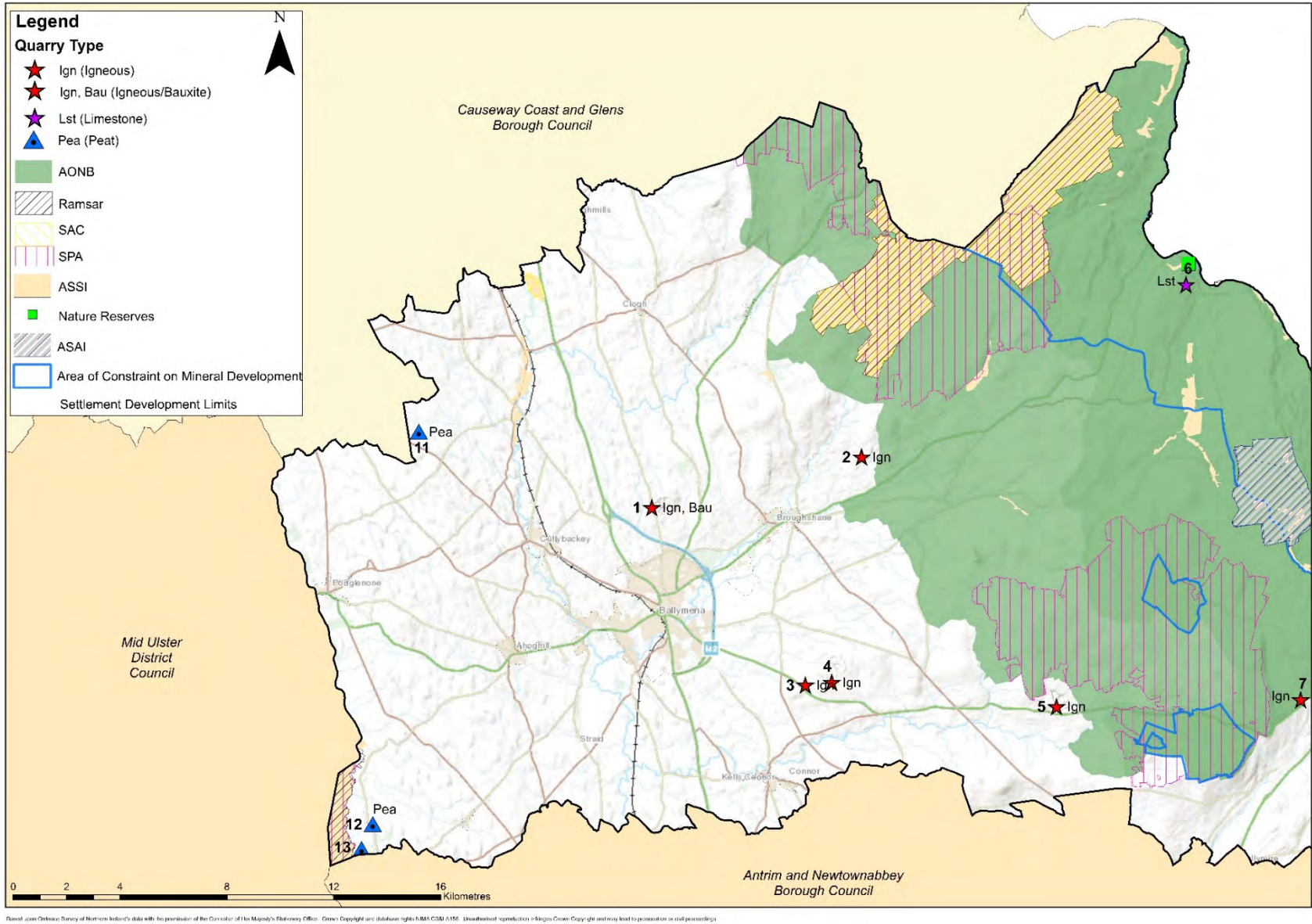
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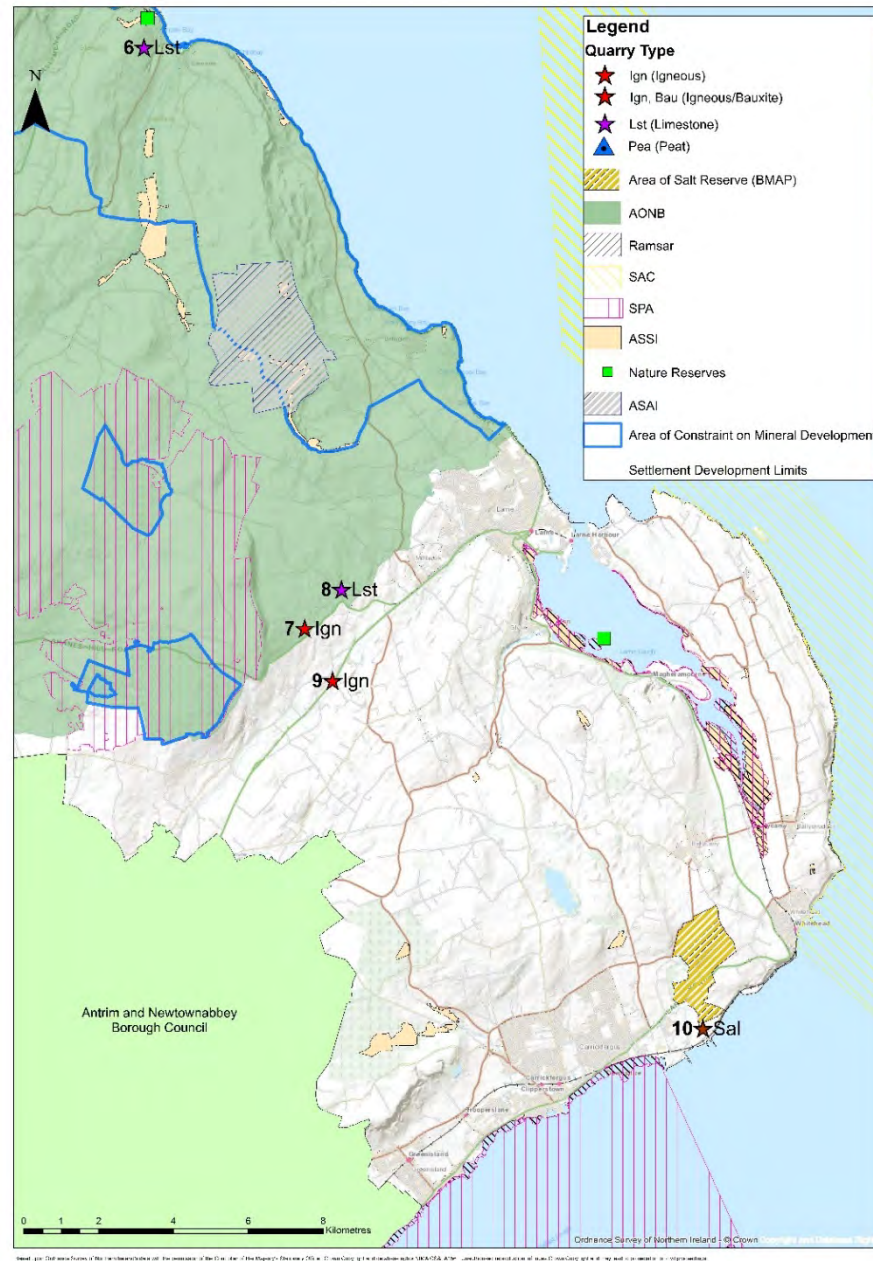
Appendix B: Mineral Licence Areas



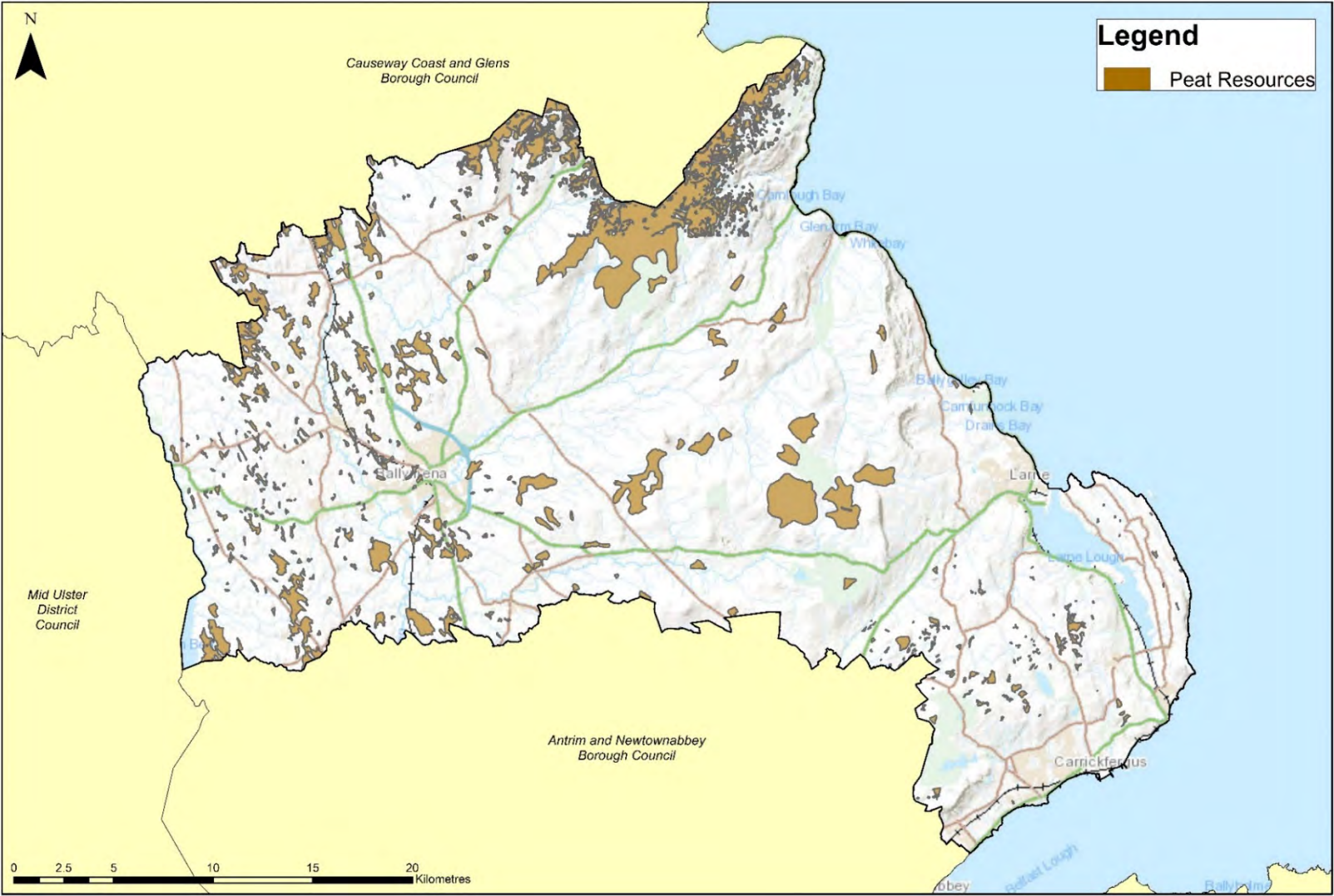
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Appendix C: Quarry, Mine and Bog Locations in Mid and East Antrim





Appendix D: Peat Resources in Mid and East Antrim



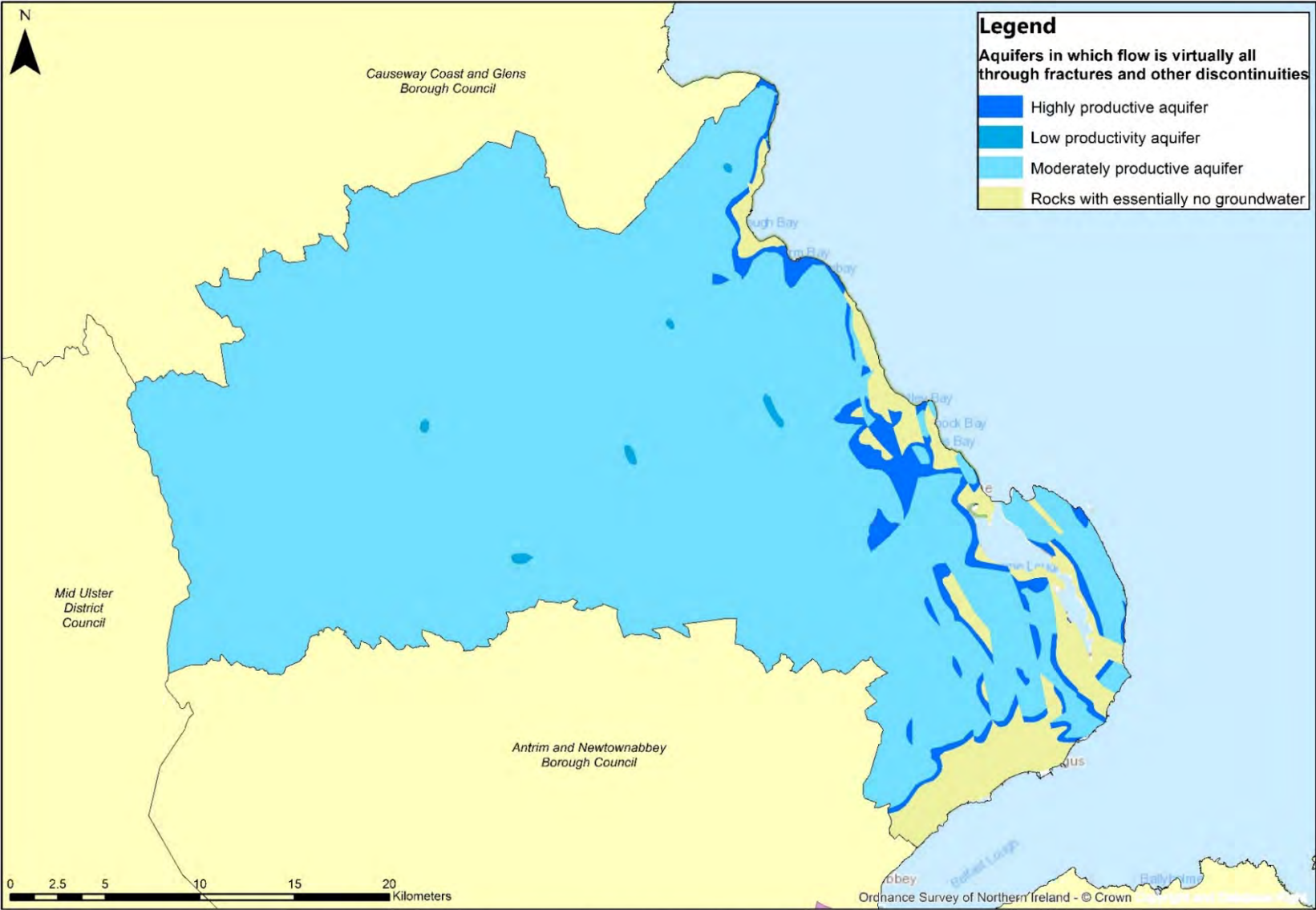
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Appendix E: Peat Extraction Sites in Mid and East Antrim



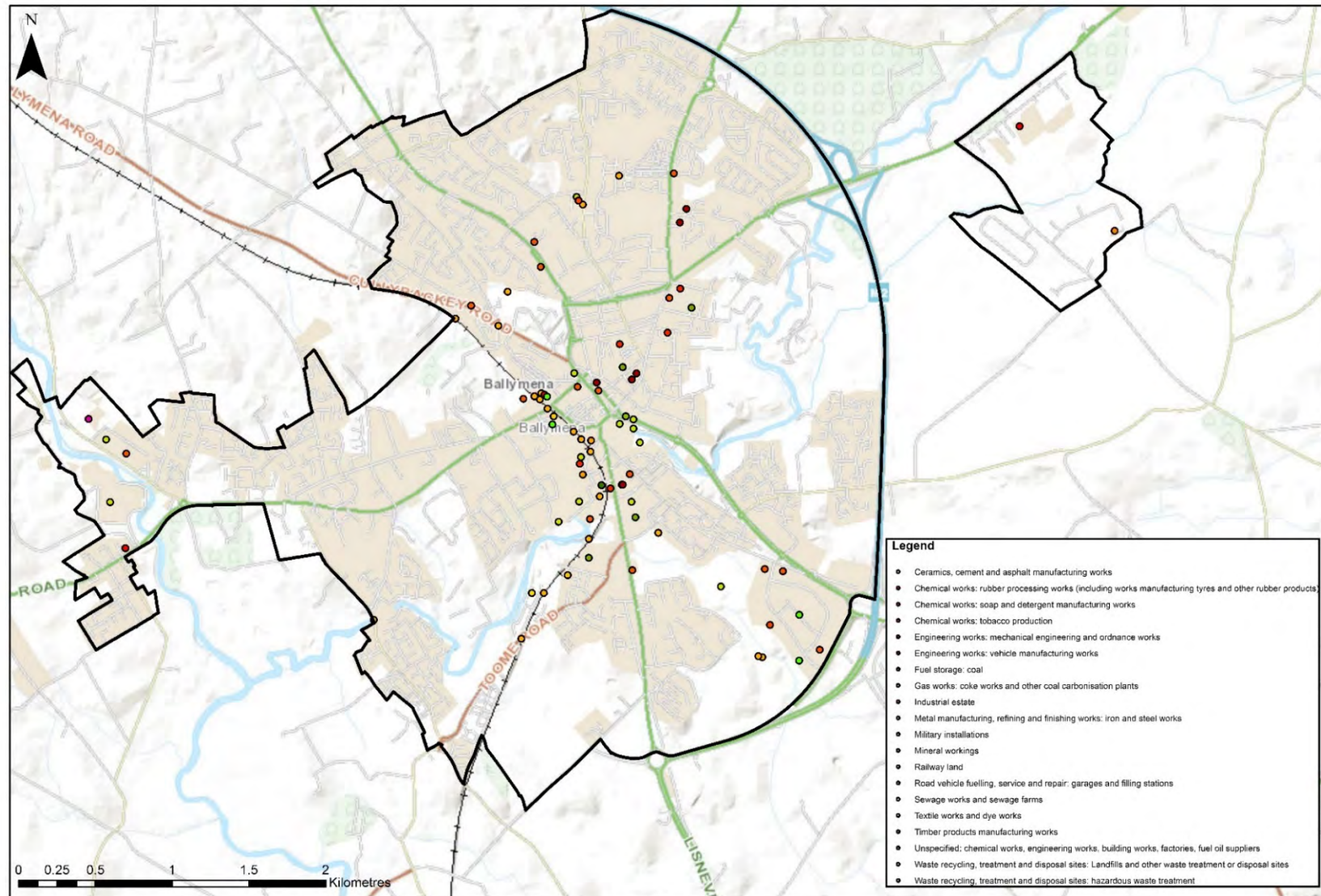


Appendix F: Hydrogeology in Mid and East Antrim



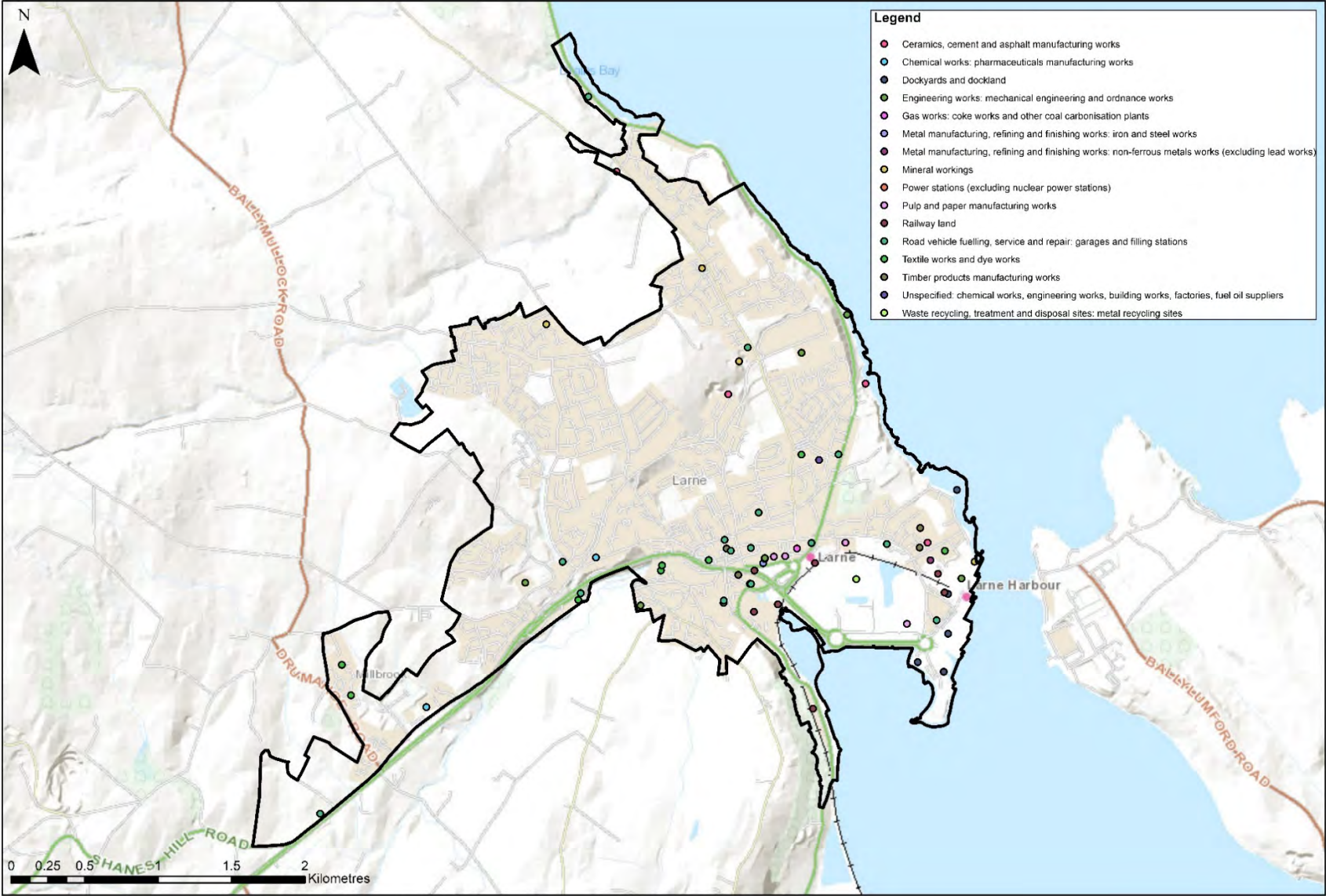
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Appendix G: Potentially Contaminated Land in Ballymena

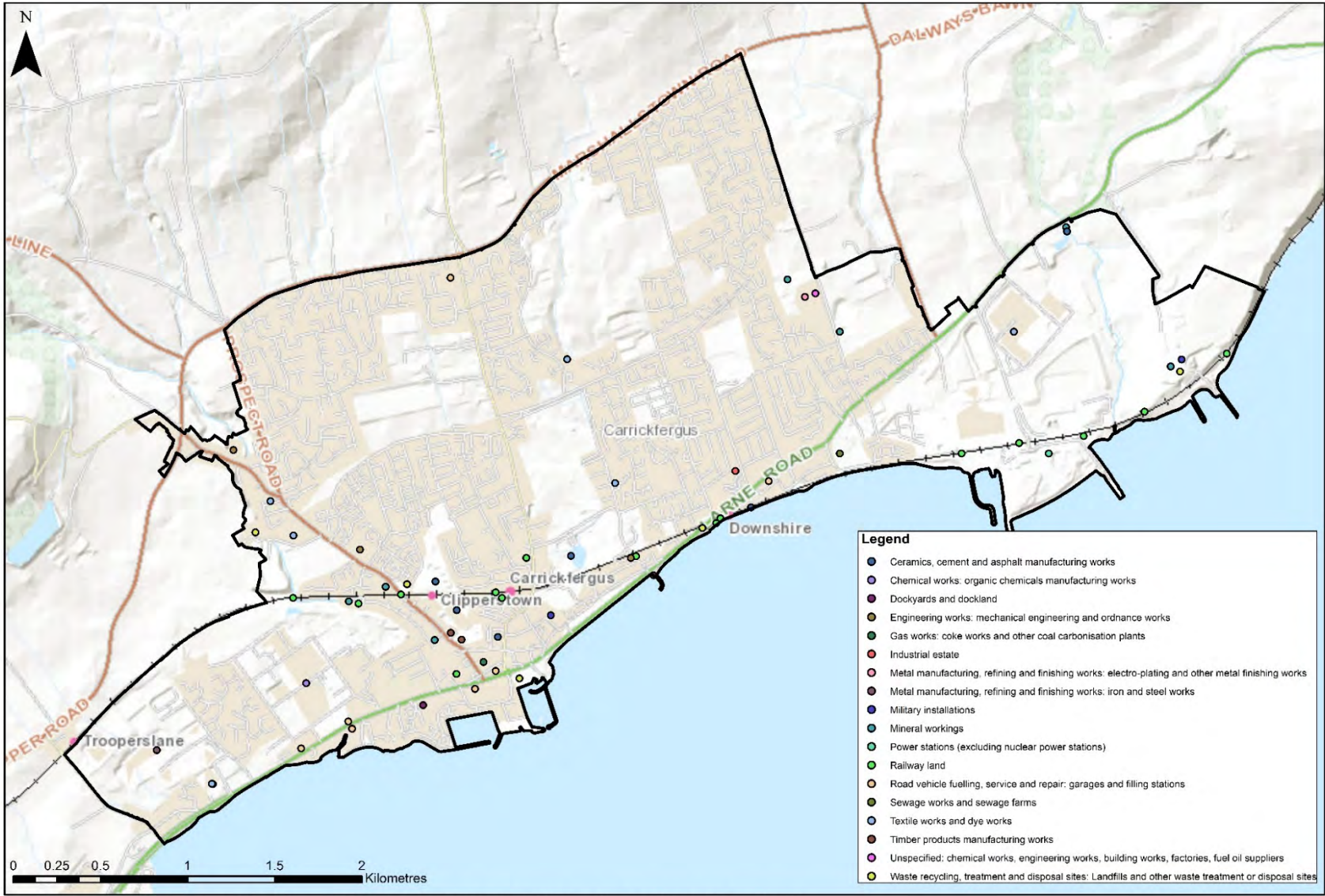


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Appendix H: Potentially Contaminated Land in Larne

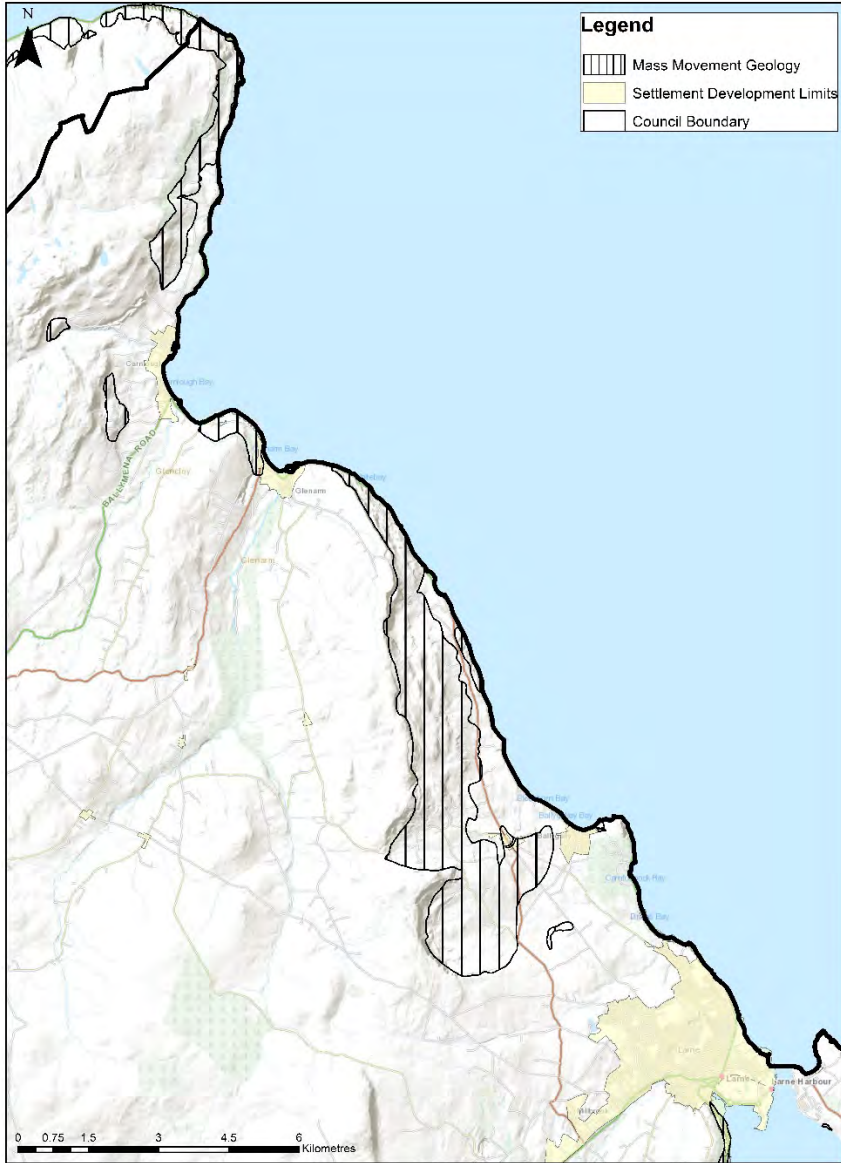


Appendix I: Potentially Contaminated Land in Carrickfergus

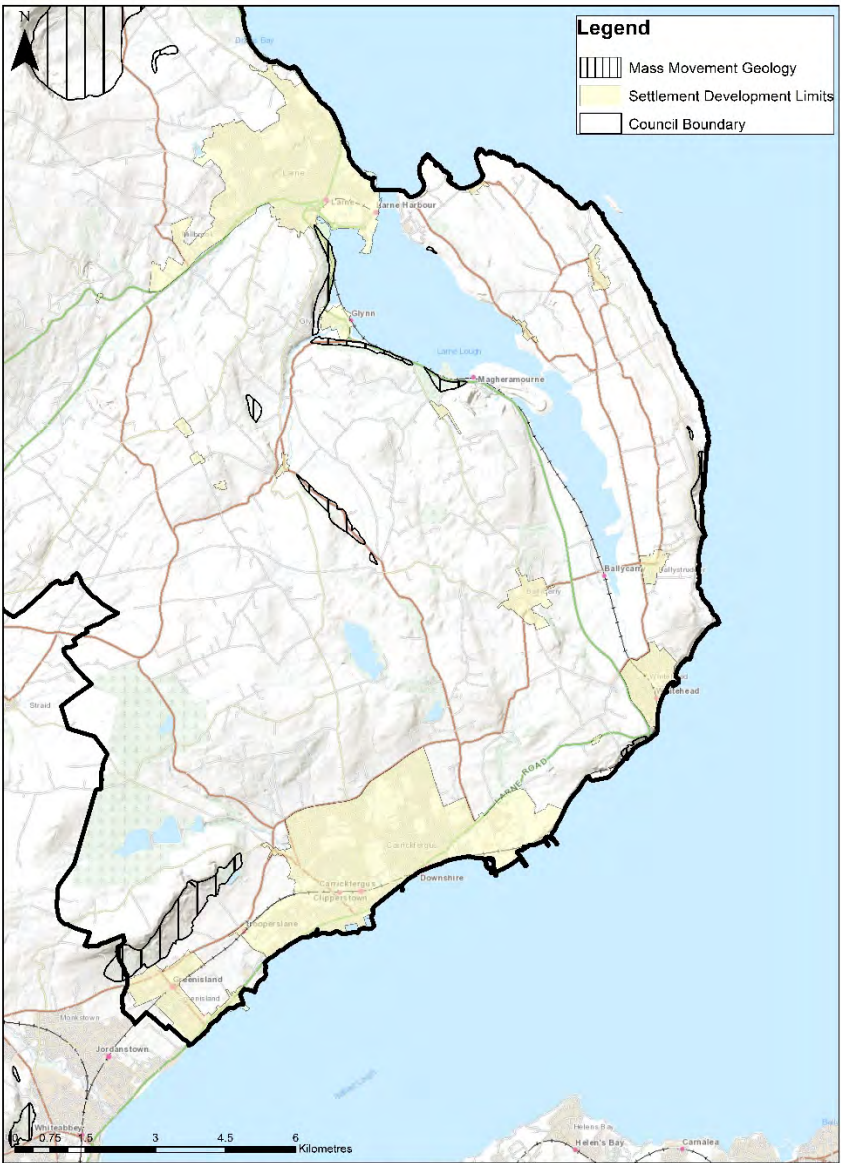


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Appendix J: Mass Movement Geology (Landslides)

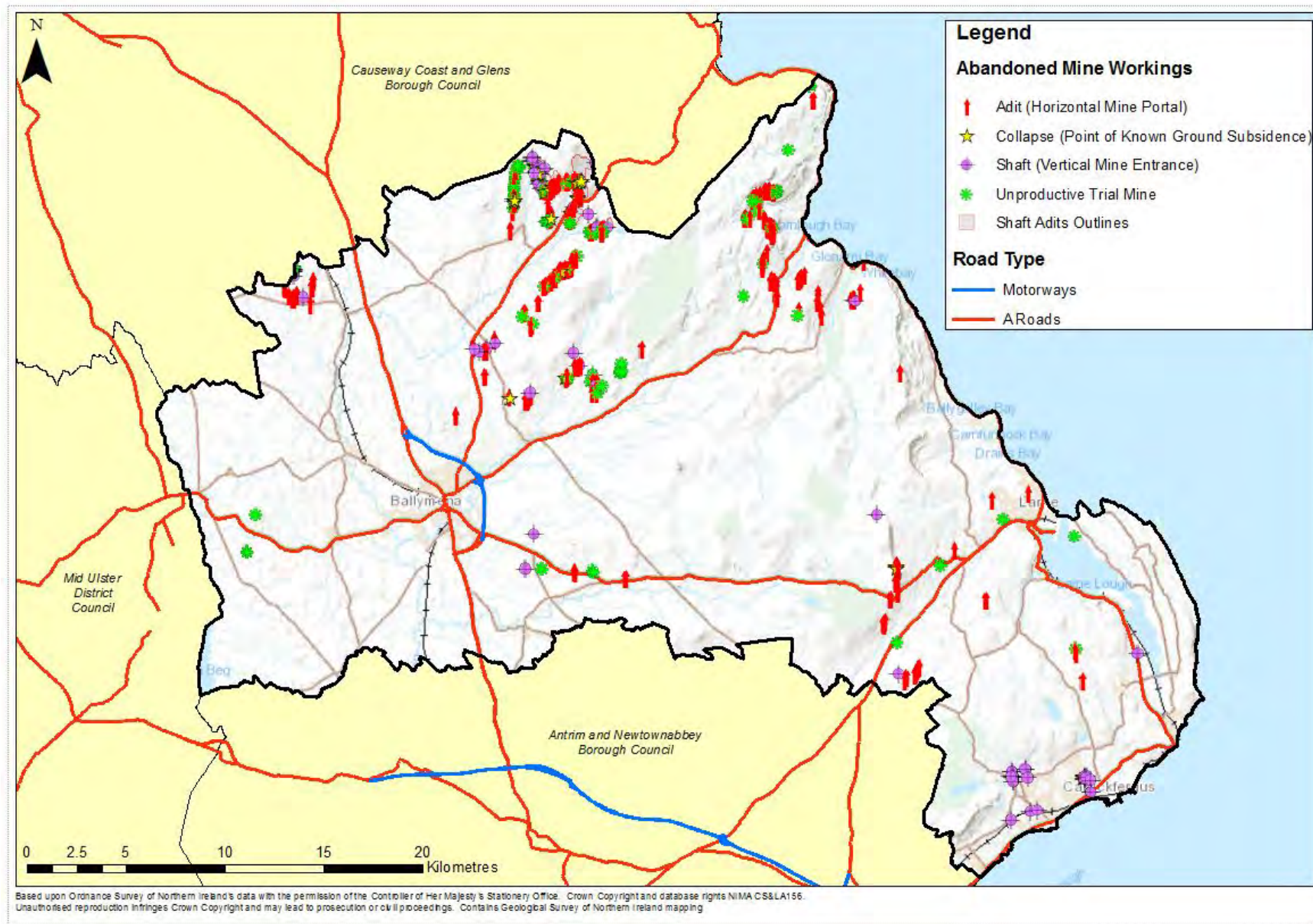


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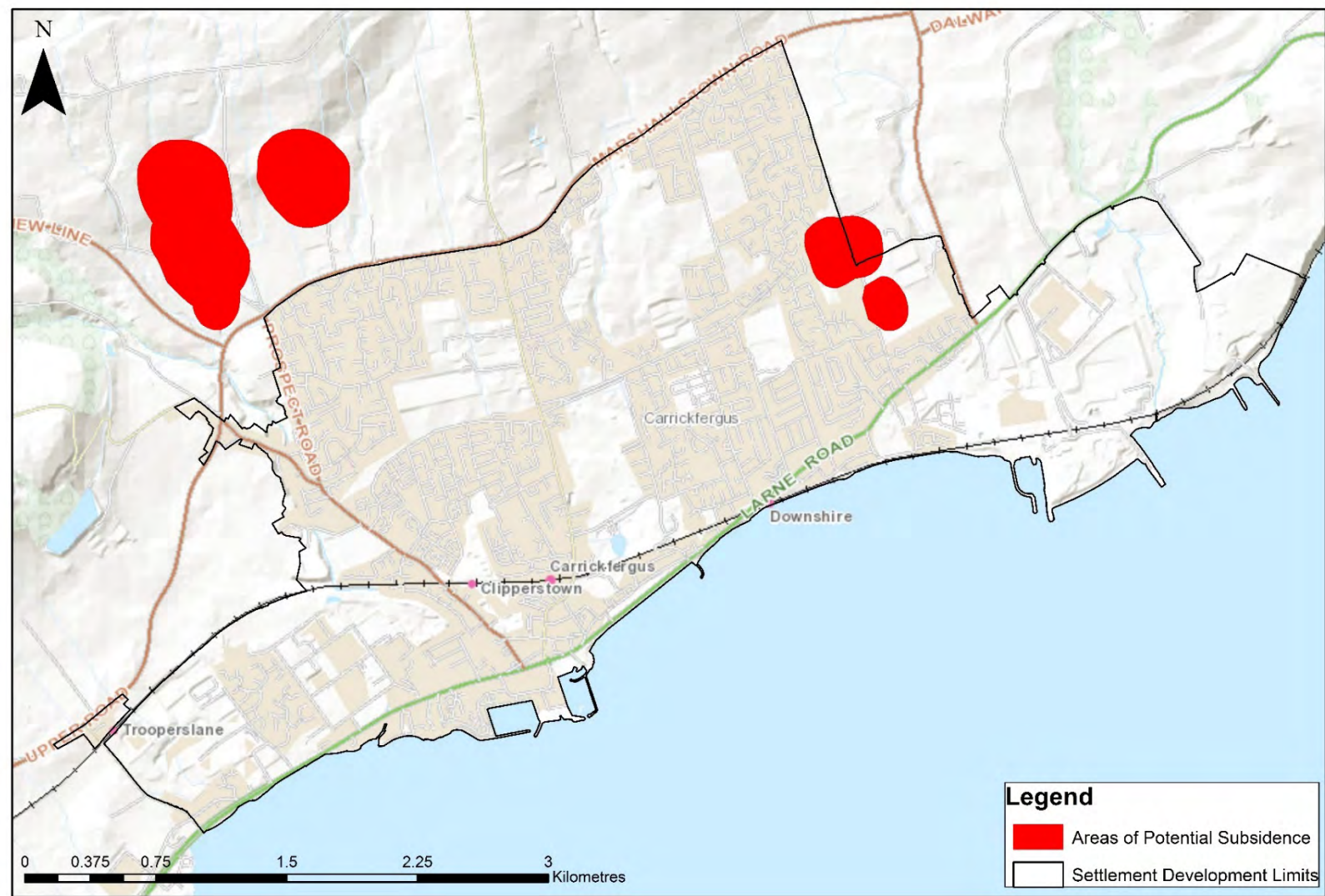


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Appendix K: Abandoned Mine Workings in Mid and East Antrim



Appendix L: Areas of Potential Subsidence in Mid and East Antrim



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Appendix M: Quarry, Mine and Peat Operators in Mid and East Antrim

Map Ref	Quarry Name/Mineral Type	Operator/ Site Address	Head Office	Comments
1	Clinty Quarry/ -Basalt and Inter Basaltic Clay	James Stevenson (Quarries) LTD. Clinty Quarry, 215 Doury Road Ballymena BT43 6SS	As site address	Active
2	Ballylig Quarry/ Igneous	RMC LTS 30 Ballylig Road, Broughshane BT43 7HH	107 Moorfields Road Ballymena BT42 3HJ	Active
3	Tully 2 / Basalt	Boville McMullan Ltd 116 Moorfields Road, Ballymena BT42 3HJ	As site address	Active
4	Tully 1 / Igneous	Northstone NI Ltd 50 Craigdoo Road, Ballymena	As site Address	Active
5	Craigs Quarry / Basalt	Robinsons Quarry Masters Ltd 32 Glenhead Road, Ballymena BT42 4RE	As site address	Active. Concrete Block Plant also
6	OMYA UK Ltd / Limestone	OMYA UK Ltd 17 Munie Road, Glenarm BT44 0BG	As site address	Active
7	Hightown Quarry / Igneous	Hightown Quarry Shanes Hill Road Kilwaughter	Mallusk Quarries Limited 38 The Square, Ballyclare, BT399BB	Occasionally Active

8	Kilwaughter Minerals Ltd. / Limestone	Kilwaughter Minerals Ltd, 9 Starbog Road, Kilwaughter Larne	As site address	Active
9	Loughside Quarry (Ballyrickard) Hardrock - vBasalt	FP McCann 146 Belfast Road, Larne, BT40 2PN	FP McCann 3 Drumard Road, Knockloughrim, Magherafelt BT4BT45 8QA	Active
10	Kilroot Salt Mine –Rock Salt	Irish Salt Mining and Exploration Co. Ltd 10 Fort Road, Kilroot, Carrickfergus, BT38 9BT	As site address	Active
11	Craigs Moss / Peat	Craigs Road SE of Rasharkin (Straddles MEA and CC&G councils)	Bulrush Horticulture LTD Newferry Road, Bellaghy, Magherafelt, BT45 8ND	Active
12	Ballyscullion Moss / Peat	at junction with Loughbeg Road and Ballyscullion Road east of Loughbeg)	Clover Peat 16 Derrylaughan Road, Dungannon, BT714QR	Active
13	Loughbeg Moss / Peat	Loughbeg Road Toomebridge (just south of moss No 12)	Clover Peat 16 Derrylaughan Road, Dungannon, BT714QR	Active

Appendix N: Evolution of Relevant draft Plan Strategy Policy

PPS 1: General Principles	SPPS	POP Recommendation/Comment	POP Responses and Post Consultation Consideration	Final Wording for Draft Plan Strategy
<p>Paragraph 3 - The public interest requires that all development is carried out in a way that would not cause demonstrable harm to interests of acknowledged importance.</p>	<p>Under the SPPS, the guiding principle for planning authorities in determining planning applications is that sustainable development should be permitted, having regard to the development plan and all other material considerations, unless the proposed development will cause demonstrable harm to interests of acknowledged importance.</p> <p>The SPPS provides five core planning principles as well as strategic policy under 16 overarching subject matters. Across these principles and policies there are a number objectives such as good design and protecting amenity that apply to all development types.</p>	<p>It was recognised in the POP that there were a number of overlapping criteria across the various policies therefore it was suggested that these may be included within a General Policy in order to prevent duplication.</p> <p><i>It is recommended that consideration is given to bringing forward a General Policy in the LDP Plan Strategy.</i></p>	<p>No definitive comments received either for or against the inclusion of a General Policy.</p> <p>Post consultation consideration It is recommended that consideration is given to bringing forward a General Policy in the LDP Plan Strategy.</p>	<p>Policy GP1: General Policy for all Development</p> <p>New policy wording developed following the amalgamation of general policy criteria from across a number of existing policies such as PPS 3 AMP 1 and AMP 6, PPS 4 PED 9, PPS 7 QD1, PPS 16 TSM 7, PPS21 CTY 13, 14 &15, PPS 18 RE 2 as well as policies DES 2 and DES 10 in the PSRNI. The policy also takes account of planning principles included within PPS 12 and PPS 13.</p> <p>The proposed General Policy seeks to ensure that all development (except minor proposals) is sustainable, accords with the LDP and will not result in demonstrable harm to interests of acknowledged importance. This policy also provides operational policy for specific forms of development e.g. schools, which are not specifically catered for through other subject policies.</p> <p>The General Policy sets out criteria under five headings that all development (except minor proposals) must meet, where relevant. Development within the countryside must also meet a number of additional criteria which are particularly relevant to the rural context.</p> <p>Councillor & PMT Comments Some of the original policy criteria have been amended to take account of comments raised through Councillor workshops and meetings with consultees. However, this engagement did not change the overall shape or thrust of the General Policy.</p>

Planning Strategy for Rural Northern Ireland (PSRNI)	SPPS	POP Recommendations/Comment	POP Responses and Post Consultation Consideration	Final Wording for draft Plan Strategy
<p>Policy MIN 1: Environmental Protection To assess the need for the mineral resource against the need to protect/conserv</p> <p>In seeking to achieve an appropriate balance between environmental protection and the need for mineral resources; Policy MIN 1 states that decision making on a particular minerals proposal will take account of all relevant environmental, economic and other considerations.</p> <p>In regard to environmental considerations, the policy attaches particular weight to safeguarding areas which have been designated for their natural / scientific or built heritage importance. The importance of protecting boglands from commercial peat extraction is also emphasised.</p> <p>The policy states that extensions to existing mineral workings which minimise environmental disturbance in the countryside will normally be preferred to new workings on greenfield sites.</p> <p>In regard to mitigation, the policy requires applications to demonstrate measures designed to prevent the pollution of rivers, watercourse and groundwater.</p>	<p>SPPS accords with Policy MIN 1 and reiterates the need to balance the requirement for mineral resources against the need to protect and conserve the environment (paragraph 6.154 and 6.162).</p> <p>The SPPS addresses the same environmental issues as Policy MIN 1 but provides more policy direction on economic considerations, thereby seeking to achieve a more rounded balance between these aspects of sustainable development as they relate to the minerals sector.</p>	<p>It is recommended that the wording of this policy is updated to reflect the greater detail contained in the SPPS in regard to economic considerations.</p> <p>It is also recommended that policy is amended to recognise any spatial designations (for example relating to Areas of Constraint on Minerals Development) that may be brought forward in the LDP.</p>	<p>There was general support from public respondents and DfE to carry through MIN 1 with amendments to reflect the SPPS.</p> <p>It was suggested that policy should require proposals to demonstrate how their carbon footprint is interrogated in line with climate change aspirations and policy.</p> <p>RSPB recommended that planning permission should not be granted for new or existing peat sites nor should extant permissions be renewed. It was suggested that policy should ensure that biodiversity, environmental integrity and priority habitats/species should be protected.</p> <p>It was recommended that clear and robust policy tests must be set out so that a criteria can be effectively assessed and measured by the decision maker. Any tests for potential impact on sensitive sites (including those set at European Level through the Habitats Directive) should be appropriately incorporated into any policy wording of the LDP.</p> <p>It was suggested that underground mining techniques should be recognised for their ability to exploit resources with less surface disruption and should be considered appropriately in policy development.</p> <p>Post consultation consideration Further to the previous recommendation we will give consideration to the comments made and engage further with statutory consultees and stakeholders, in bringing forward amended policy through the LDP Plan Strategy.</p>	<p>MIN 1: Mineral Development – Extraction & Processing of Hard Rock Aggregates.</p> <p>This Policy is an amalgamation of PSRNI Policies MIN1, 2, 6 and 7.</p> <p>It continues to seek to achieve a balance between environmental protection and need for mineral resources. It lists the interests that proposals must not have an adverse impact on but the detail is moved to the Justification and enhanced where necessary.</p> <p>It recognises spatial designations where extraction and processing are not permitted unless under exceptions specified in those policies, i.e. ACMD and SCAs.</p> <p>It indicates that policies must meet Policy GP1: General Policy for all Development and accord with other provisions of the LDP and signposts to Policy MIN 8 – Restoration and management of minerals.</p> <p>Peat extraction is now accounted for in new Policy MIN7.</p> <p>Councillor and PMT Comments Following DfI comments additional clarification on extraction and processing was added to Justification. Following DfE comment RE. AONBs a ‘precautionary’ approach was changed to ‘cautious’ in keeping with SPPS para 6.155 and reference to our LCA was added re-informing decisions in areas of landscape quality. Also references to effects of underground mining on surface development were removed as techniques can have minimal impact. Following comments from Mid and East Antrim Borough Council’s Development Management section of Planning, reference to hydrology impacts on European sites was added to Justification and relevant wording in justification amended to reflect SES terminology in HRAs – ‘integrity and conservation features’.</p>

Policy MIN 2: Visual Implications To have regard to the visual implication of minerals extraction

Specifies that applications for new mineral workings or extensions to existing workings in sensitive landscapes such as AONB/AOHSV will be subject to rigorous examination with particular attention being given to the landscape implications of the proposals.

Where permission for mineral development is granted, the policy seeks to ensure that landscape quality will be protected through appropriate mitigation measures secured through planning conditions.

Policy MIN 3: Areas of Constraint To identify Areas of Constraint on Minerals Development (ACMD)

Sets out that if for visual, conservation or other reasons, areas require to be protected from mineral developments they will be identified as ACMD.

Specifies that within ACMD there will be a general presumption against granting planning permission for the extraction and/or processing of minerals. It is outlined that exceptions to this policy may be made where the proposed operations are short-term and the environmental implications are not significant. On-site processing facilities are unlikely to be permitted.

SPPS reflects the general thrust of Policy MIN 2.

Further, the SPPS adds that where a designated area such as an AONB covers expansive tracts of land, there should be the consideration of the scope for some minerals development that would avoid key sites and that would not unduly compromise the integrity of the area as a whole or threaten to undermine the rationale for the designation (paragraph 6.158).

SPPS reflects the thrust of Policy MIN 3.

Policy MIN 2 is working well and there is no evidence to suggest that it needs to be substantially amended.

It is recommended that the wording of Policy MIN 2 is brought forward in the LDP Plan Strategy and amended to reflect the more recent provisions of the SPPS.

Policy MIN 3 is working well and there is no evidence to suggest it needs substantially amended.

In Key Issue 12 the Preferred Option is to facilitate minerals development in appropriate locations while safeguarding key landscape and environmental assets through the expansion of existing ACMD and/or designation of new ACMDs.

It is recommended that the wording of Policy MIN 3 is brought forward in the LDP Plan Strategy and amended to reflect the slightly more detailed approach of the SPPS.

A number of public respondents supported our approach of carrying through MIN 2 with amendments to reflect the SPPS.

DfE suggested that MIN 2 does not accommodate the development of high value minerals and that any proposal for exploitation/extraction of high value minerals should be considered in light of the proposed activity and not rejected outright.

Post consultation consideration

Discuss with DfE before bringing forward POP recommendation.

A number of public respondents agreed with the LDP approach to carry through MIN 3.

It was suggested that clarification is required around what is meant by the terms "short term" and "not significant".

It was suggested that minerals development has the potential to impact directly, indirectly and cumulatively on areas surrounding ACMDs and hence there should be a presumption against mineral development in these areas too.

DfE recommended that ACMDs should not be utilised to apply blanket bans on exploration activities for high value minerals.

Unsupportive respondents were of the view that the removal of the ACMD would provide certainty within the minerals industry and that there was no clear evidence for the designation of the existing ACMD.

Post consultation consideration

Review comments and give further consideration to the wording of policy and need for clarity in the justification/amplification of the policy. The

This policy is accounted for in new MIN1 Policy above.

Councillor and PMT Comments

None specific to this element of new MIN1

In consideration of Paragraph 6.158 of the SPPS, it is noted that the ACMD designated within the AONB (as brought forward from the Larne Area Plan 2010) covers only a portion of its extent, estimated at 31%. Further, even within the ACMD, Policy MIN4 allows for mineral development where the environmental/amenity impacts are not significant.

MIN 4: Areas of Constraint on Mineral Development

The general presumption against extraction/processing in ACMDs in PSRNI MIN3 is carried forward in the wording of new MIN4 however the exception of permitting 'short-term operations' has been removed

Councillor and PMT comment

Initial wording to include 'short-term' extraction and define it as '15 years', is removed following DfE comment that there is no evidence to support this timeframe and DfI comment that the council should have sufficient rationale for this time frame which would include construction, operation, decommissioning, restoration and aggregate type.

A new exception has been added to allow for minor expansion to existing mineral workings and justification explains how ACMD boundary is amended to exclude limestone quarry at Munie Road, both in keeping with the SPPS balanced approach to minerals development.

In line with the SPPS, there is no general presumption against the exploration and

Policy MIN 4: Valuable Minerals
Applications to exploit minerals, limited in occurrence and with some uncommon or valuable property, will be considered on their merits

Sets out that there will not be a presumption against the exploitation of discovered minerals that are particularly valuable to the economy.

Outlines that where a proposal lies inside a statutory policy area due weight will be given to the reason for the statutory zoning when making a decision.

SPPS accords with Policy MIN 4 in that there will not be a presumption against the exploitation of discovered minerals valuable to the economy and that when considering a site within a statutory policy area, due weight will be given to the reason for the statutory zoning (paragraph 6.157).

SPPS also addresses unconventional hydrocarbon extraction which is not mentioned in PSRNI. It reflects the government position that there should be a presumption against unconventional hydrocarbon extraction until there is sufficient and robust evidence on all environmental impacts (paragraph 6.157).

Policy MIN 4 is working well and there is no evidence to suggest it needs substantially amended.

It is recommended that the wording of Policy MIN 4 is updated to reflect the SPPS stance with respect to unconventional hydrocarbon extraction.

consideration in Key Issue 12 makes it clear that any designation of ACMDs will take account of the economic need for minerals development as well as environmental and landscape interests.

A number of public respondents supported the LDP approach of carrying through MIN 4 with amendments to reflect the SPPS.

It was recommended that SPPS paragraph 6.157 is replicated in full within the LDP in order to provide clarity with respect to valuable minerals and unconventional hydrocarbon extraction.

DfE suggested there should not be a presumption against exploration of high value minerals in any area including in statutory policy areas.

Post consultation consideration

Bring forward POP recommendation. Engage further with DfE with regard to the issue of exploration for valuable minerals.

exploitation of valuable minerals in the ACMD. Extraction of other minerals is also permitted where they are of limited occurrence in Northern Ireland, with no reasonable alternative source outside the ACMD. However, in line with the SPPS (paragraph 6.75), where such minerals lie in an SCA, extraction/processing will not be permitted unless it is of such national or regional importance to outweigh the adverse impact on the SCA (Policy CS2 in draft Plan Strategy refers).

MIN 2: Valuable Minerals

This policy now only addresses valuable minerals and carries across the thrust of PSRNI MIN4 in that 'there will not be a presumption against exploitation of valuable minerals in any area. However the draft Plan Strategy applies exceptions to this approach within SCAs for reasons discussed above and it applies a cautious approach in other areas designated for their landscape quality.

Councillor and PMT comments

DfI and DfE strongly supported the policy replicating the wording of para 6.157 of SPPS i.e. there 'would not be a presumption against exploitation of valuable minerals'. Hydrocarbons are now accounted for in new Policy MIN 3 below following DfE recommendation to differentiate between extraction of hydrocarbons and valuable minerals.

**Policy MIN 5: Mineral Reserves
Surface development which would
prejudice future exploitation of
valuable mineral reserves will not
be permitted**

Seeks to ensure that where there are mineral reserves which are considered to be of particular value to the economy and where those reserves have been proven to acceptable standards, surface development which would prejudice their exploitation will not be permitted. Outlines that Mineral Policy Areas in respect of such minerals will be defined by LDPs, where appropriate.

**Policy MIN 6: Safety and Amenity
To have particular regard to the
safety and amenity of the
occupants of development in close
proximity to mineral workings**

Sets out the planning considerations that will be taken into account in seeking to safeguard the safety and amenity of people living or working in close proximity to mineral workings. These considerations include:

-Maintaining safe separation distance from existing buildings, particularly where mineral operations involve blasting.

-Maintaining satisfactory standards of amenity;

-Preventing minerals development likely to prejudice public safety through potential for rendering surface land unstable, and conversely, to manage development in proximity to existing minerals operations in the interests of public safety.

SPPS reflects the thrust of Policy MIN 5.

SPPS adds that areas most suitable for minerals development may be identified in the LDP. Such areas will normally include mineral reserves where exploitation is likely to have the least environmental and amenity impacts, as well as offering good accessibility to the strategic transport network.

SPPS reflects the thrust of Policy MIN 6.

Policy MIN 5 is working well and there is no evidence to suggest it needs substantially amended.

It is recommended that the wording of Policy MIN 5 is amended to set out the broad type of areas where the protection of mineral resources is likely to be appropriate.

Policy MIN 6 is working well and there is no evidence to suggest it needs substantially amended.

It is recommended that the wording of Policy MIN 6 is updated to reflect the SPPS presumption to refuse planning permission unless the developer can demonstrate how the effects of mineral proposals can be mitigated against.

It is also recommended that policy is amended to recognise any spatial designations (for example relating to Areas of Potential Subsidence, Key Issue 13) that may be brought forward in the LDP

It was suggested that the proposed updates to MIN 5 should be supported with definitive mineral safeguarding areas.

DfE suggested that the rationale for continuing with a general policy covering the identification and designation of areas as Mineral Reserve Areas still holds.

A number of public respondents suggested that policy should not seek to promote minerals development in certain areas as economic considerations should not override environmental or social obligations.

Post consultation consideration

Bring forward POP recommendation taking account of the SPPS which allows for identification of Mineral Reserve Areas.

It was suggested that policy should be worded to ensure any significant environmental and amenity impacts arising from minerals development proposals can be mitigated, otherwise refused.

DfE recommended that considerations of safety and amenity should be made in the context of the nature, duration and proximity of any proposed development, and any mitigation measures should be included as part of the proposal.

Post consultation consideration

Bring forward POP recommendation but engage further with DfE on specific concerns.

This policy has not been carried forward.

DfE agree with the LDP approach to delay the potential designation of Mineral Reserve Areas until there is a better understanding of required supply and demand patterns for aggregates.

This Policy is now incorporated within new **Policy MIN1 – Mineral Development**, (see above).

The particular aspect of PSRNI MIN6 RE. managing development in proximity to existing minerals operations is specifically addressed through the new policy MIN 6 – Development at risk of Subsidence associated with past or present underground mineral extraction.

Councillor and PMT Comments

None specific to this element of new MIN1

Policy MIN 7: Traffic
To take account of the safety and convenience of road users and the amenity of persons living on roads close to the site of proposed operations

Sets out that where there would be prejudice to the safety and convenience of road users arising from access to a minerals site or the deficiency of the public road network, then planning permission will normally be refused, unless these matters can be addressed.

Policy MIN 8: Restoration
To require mineral workings to be restored at the earliest opportunity

Ensures that applications for the extraction of minerals must include satisfactory restoration proposals and where practicable such proposals should provide for the progressive restoration of sites.

SPPS reflects the thrust of Policy MIN 7.

SPPS reflects the thrust of Policy MIN 8 and it accords with Policy MIN 8 where it states that applications for the extraction of minerals must include satisfactory restoration proposals (paragraph 6.161).

The SPPS provides greater detail as to the type of information to accompany planning applications so as to ensure satisfactory restoration of sites subsequent to the completion of operations.

Policy MIN 7 is working well and there is no evidence to suggest it needs substantially amended.

It is recommended that the wording of Policy MIN 7 is brought forward in the LDP Plan Strategy.

Policy MIN 8 is working well and there is no evidence to suggest it needs substantially amended.

It is recommended that the wording of Policy MIN 8 is brought forward in the LDP Plan Strategy and updated to reflect the SPPS.

A number of statutory consultees and public respondents supported the approach of carrying through Policy MIN 7.

Post consultation consideration
Bring forward POP recommendation.

RSPB recommended that policy ensures that sites are restored in order to enhance biodiversity.

DfE suggested that in all cases restoration should be designed to secure the long-term safety and stability of the site and to prevent pollution.

Post consultation consideration
Bring forward POP recommendation and consider potential amendments to policy in light of comments made.

This Policy is now incorporated within new **Policy MIN1 – Mineral Development** (see above).

MIN 8: Restoration and Management of Mineral Sites

The thrust of PSRNI MIN 8 is carried forward, with some detail moved to Justification and additional detail added to address the preferred types of reclamation and after use cited in the SPPS. In line with 6.167 of SPPS, the policy includes more detail on the type of information to accompany applications (Restoration Proposals and Management Plan) to ensure sustainable progressive restoration and addresses the SPPS requirement to underpin by attaching appropriate conditions/agreement to permission.

Policy requires any development proposals to meet Policy GP1 : General Policy for all Development and accord with other provisions of the LDP

Councillor and PMT Comments
Following comment from DFI a cross reference of this policy was added to MIN1. DfE welcomed the proposals for restoration. GSNI suggested consulting MPANI for advice on bonds, who in turn advised they are not necessary unless there is genuine concern about financial liability and security and the ability of a specific company to implement progressive restoration. The policy builds in an option to ask for financial guarantee where legitimate concerns exist.

New MIN 3: Hydrocarbons

SPPS states there will not be a presumption against the exploitation of discovered minerals valuable to the economy and that when considering a site within a statutory policy area, due weight will be given to the reason for the statutory zoning (paragraph 6.157).

SPPS also addresses unconventional hydrocarbon extraction which is not mentioned in PSRNI. It reflects the government position that there should be a presumption against unconventional hydrocarbon extraction until there is sufficient and robust evidence on all environmental impacts (paragraph 6.157).

Hydrocarbons were not specifically addressed in the POP

DfE recommended to differentiate between extraction of hydrocarbons and extraction of valuable minerals.

DfI also recommended clearer distinction and separation of the policy in relation to 'valuable minerals including hydrocarbons' and 'unconventional extraction of hydrocarbons'

MIN 3: Hydrocarbons

This new policy distinguishes between conventional and non-conventional extraction methods and, in regard to the former, requires compliance with the Valuable Minerals policy (MIN2) above. The presumption against unconventional extraction of hydrocarbons and gases by fracking, without sufficient and robust evidence on environmental impacts, supports para 6.157 of the SPPS. The policy also requires all proposals to meet general policy and accord with other provisions of the LDP. The Justification refers to the recent consultation on Permitted Development for hydrocarbon exploratory drilling. The potential for different legislative arrangements to emerge in regard to Permitted Development was the reason DfE/DfI favoured a separation of the policy (from MIN2 Valuable Minerals).

New MIN 5: Areas of Salt Reserve, Carrickfergus

The SPPS recognises that the minerals industry makes an essential contribution to the economy and supports their responsible exploitation. It therefore seeks to safeguard mineral resources which are of economic or conservation value and to ensure that workable mineral resources are not sterilised by other surface development which would prejudice future exploitation.

POP Key Issue 12 Preferred Option was to safeguard mineral resources of economic or conservation value by allowing for expansion of existing quarries and retaining the designated Area of Salt Reserve.

The Irish Salt Mining Company (ISME) responded to the POP by pointing out that the Area of Proven Salt Reserves identified in the POP (which had been designated in the draft BMAP) did not cover the full extent of the area actually covered by existing planning permissions and mining leases. ISME in their response also delineated an extensive area beyond this as a potential Area of Salt Resources which they considered to merit protection through the LDP from sterilisation from surface development.

MIN 5: Areas of Salt Reserve, Carrickfergus

Policy MIN5 relates to the Area of Proven Salt Reserve covered by the draft BMAP designation plus the area presently covered by existing permissions and mining leases.

The wording of draft BMAP policy CE07 is carried forward so as to continue the same level of protection against surface development likely to result in mineral sterilisation.

GSNI has indicated that there is currently insufficient geological information to support an Area of Salt Reserve as proposed by ISME, but that further work would be needed with a view to illustrating the extent of such an area. Pending such work it is proposed to retain the existing Area of Proven Salt Reserve and to consider any need to extend this at Plan Review Stage.

Councillor and PMT Comments

New MIN 5: Areas of Salt Reserve, Carrickfergus (CONTINUED)

New MIN 6: Development at Risk of Subsidence due to past or present underground mineral excavation

New MIN 7 Peat Extraction

PSRNI MIN 6 addressed managing development in proximity to existing minerals operations in the interests of public safety.

Peat extraction was referenced in PSRNI MIN1. SPPS advises that permission for the extraction of peat for sale will only be granted where the proposals are consistent with the protection of bog lands valuable to nature conservation interests and with the protection of landscape quality particularly AONBs

POP Key Issue 13 Preferred Option was to retain the existing BMAP Areas of Potential Subsidence within the former Carrickfergus Borough and retain policy CE06 which sets out a presumption against development. It also proposed to assess if there are any other known areas of subsidence within the Borough that should be identified.

POP did not address Peat extraction

DfE advised that areas of potential subsidence (Carrickfergus disused Salt Mines) should remain and not be developed. Other areas of historic mining (iron ore and bauxite) where surface development is proposed, should be subject to specialist risk assessment to determine development suitability and address H&S issues, prior to planning approval and the assessment should be submitted along with the application. They supplied a link to known abandon mines and advised that in areas of known instability pre-application discussions with GSNI would be welcomed. They advised that mine gas migration and water emission also need to be considered.

When seeking opinion on the proposed policy wording RE. only permitting commercial extraction from degraded bogs where the peatland is not reasonably capable of restoration: DfI Water Policy advised that there are recommendation for peatland restoration within their strategy.

NIEA are currently preparing conservation management plans for a number of bogs across NI and were content with wording.

DAERA provided guidance on the definitions of degraded raised bogs that are capable of natural regeneration.

Policy welcomed by all consultees. DfE noted that Salt was a valuable mineral of regional importance so Justification text was amended to reflect this.

MIN 6: Development at Risk of Subsidence due to past or present underground mineral excavation

The policy wording in regard to Areas of Potential Subsidence associated with salt mining is brought forward from draft BMAP policy CE06. The policy in regard to development in proximity to other known abandoned mines takes account of DfE comments.

Councillor and PMT Comment

Council content
See adjacent column for PMT comments.

MIN 7 Peat Extraction

Policy and Justification include direction of SPPS and address comments from Consultees. It permits commercial peat extraction where the peatland is already degraded and not reasonably capable of restoration and justification includes a definition of a degraded raised bog capable of natural regeneration.

It advises that proposals also have to meet General Policy and accord with other provisions of LDP.

Councillor and PMT Comment

Council content
See adjacent column for PMT comments.
NIEA advice to retain exception.

Appendix O: Legislative Background of Minerals Development in Northern Ireland

Planning (Interim Development) Act (Northern Ireland) 1944

The 1944 Planning (Interim Development) Act (Northern Ireland) gave development large degree of exemption from the regulations imposed under Planning Legislation on other development. Where land was comprised in a mineral undertaking it was permitted development.

The Mineral Development Act 1969

After World War II these exemptions were addressed and new legislation formed in the UK, however new legislation was not introduced in Northern Ireland until The Mineral Development Act of 1969. This simplified exploration for non-aggregate minerals by vesting rights in one authority, the Department of Economic Development (DED). The DED now known as The Department for the Economy (DfE), administers all oil and gas reserves and licenses oil and gas exploration and extraction. However, before extraction commences, planning permission must be obtained from the relevant Council.

This Act also gave DfE responsibility for most other minerals. There are three main exceptions:

- gold and silver, which belong to the Crown
- minerals which were being worked when the 1969 Act became law
- "Common" substances, including aggregates, sand and gravel.

Under Article 18(1) of the Quarries (Northern Ireland) Order 1983, DfE were also given the responsibility to gather information on all quarries in order to collate an Annual Minerals Statement.

Mining Waste Directive

Directive 2006/21/EC on the management of waste from the extractive industries, the Mining Waste Directive (MWD) was adopted on 15 March 2006. It introduces measures to prevent or minimise adverse effects on the environment and risks to health from the management of waste from the extractive industries. It applies to waste resulting from the extraction, treatment and storage of mineral resources and the working of quarries.

The MWD recognises that the vast majority of mining operations do not present similar risks and sets out a proportionate and risk-based approach to dealing with extractive waste. This is particularly relevant to Northern Ireland where most extractive waste is inert and therefore benefits from lighter controls. In addition, current good practice in the industry already addresses many of the WMDs requirements and in conjunction with existing regulatory requirements, will limit the effect of any new obligations placed upon operators.

The MWD is transposed to Northern Ireland through the provisions of the Planning (Management of Waste from Extractive Industries) Regulations (Northern Ireland) 2015. Under its provisions, a waste management plan for the minimisation, treatment, recovery and disposal of extractive waste must be submitted to the Council for approval.

In planning legislation the definition of minerals includes “all minerals and substances in or under land of a kind ordinarily worked for removal by underground or surface working except that it does not include turf cut for purposes other than sale”.

Up until 31 March 2015, planning applications for minerals development were processed on a Northern Ireland wide basis by a small team of specialists in DOE Planning HQ. From 1 April 2015 the responsibility for the processing, managing and controlling of mineral applications was transferred to the new Councils.

Review of Old Mineral Permissions (ROMPS)

In line with the rest of the UK and the republic of Ireland, The Planning Act (Northern Ireland) 2011 enables Councils to start a process of an initial review of all mineral permission granted in Northern Ireland thereby ensuring that their conditions meet modern expectations and current environmental standards. Approximately 370 mineral permissions were granted between the 1960’s and the early 1990’s, with Mid and East Antrim having only 12 of these which equates to just over 3% of all the mineral permissions which are to be subjected to ROMPS.

FORMER LGD	NUMBER OF OLD PERMISSIONS	% OF NORTHERN IRELAND AS A WHOLE
BALLYMENA	5	1%
CARRICKFERGUS	2	1%
LARNE	5	1%

Mineral Licensing

Mineral Prospecting licences are issued by DfE under Section 11 of the Mineral Development Act (Northern Ireland) 1969. Companies prospect for base metals and precious metals under concurrent licences for the Department and the Crown Estates Commissioners.



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