

MID ULSTER

Position Paper

Minerals

January 2016

MINERALS

Purpose:	To provide the Council with an overview of matters relating to mineral development in Mid Ulster, in preparation for the new Local Development Plan.
Content:	The paper provides:- <ul style="list-style-type: none">(i) the regional policy and legislative context for decision making and LDP preparation in relation to minerals development;(ii) an overview of economic importance of the mineral industry to the Northern Ireland economy for Mid Ulster;(iii) an overview of existing mineral production, activity and availability within Mid Ulster;(iv) options as to how mineral development could be addressed in the new LDP for Mid Ulster.
Recommendation:	That the Council consider the findings and evaluate how future mineral development in Mid Ulster should be accommodated in the new Local Development Plan.

1.0 Introduction

- 1.1** This is one of a series of position papers on various land use topics to inform the Council in the preparation of the new LDP. The purpose of this paper is to inform the Council of the regional planning context and legislative context for mineral development. The paper will also consider the current area plans covering the district and how they plan for mineral development and what the options are for mineral development or protection within the new LDP.
- 1.2** Whilst mineral development and related industry are an important part of the economic make up of Northern Ireland and indeed Mid Ulster, the development and exploitation of mineral resources can have significant environmental impacts. By their nature, scale, location and duration of operation mineral development can impact more severely on the environment than many other forms of development. They can damage or destroy sites of nature conservation or science value and sites of historic and archaeological importance. They can also have a significant visual impact on the landscape and an adverse impact on the amenity of people living nearby. In this context this paper will emphasise the need for the LDP to ensure that the location of mineral development and their operation is controlled provision and that there

is a balance between the need for mineral development and the potential impact on the environment. The importance of securing a continuous supply of minerals to support the construction industry is accepted while ensuring that an appropriate balance is achieved with regard protecting the environment and the safeguarding residential amenity.

- 1.3** In preparing the LDP it is also important that the Council be aware of the available mineral resources within the District so as to ensure that such areas are protected if necessary from surface development in order to safeguard future mineral development potential.

2.0 Legislative and Regional Policy Context

Legislative Background

- 2.1** *The Planning Act (Northern Ireland) 2011* describes minerals as “substances which are 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”
- 2.2** Therefore, any substance which can be extracted from the ground can be classed as a mineral, other than turf which happens to be extracted for personal use.
- 2.3** *The Planning (Interim Development) Order (Northern Ireland) 1944* granted permitted development rights to quarries, under which they operated without planning permission until 1973 when the *Planning (General Development) Order (Northern Ireland) 1973* stated that permitted development rights for quarries would only last for one year, effectively meaning that existing quarries had one year to apply for planning permission.

Minerals Licensing

- 2.4** *The Mineral Development Act (Northern Ireland) 1969* meant that most minerals in the ground in Northern Ireland were vested to the Ministry of Commerce, now known as the Department of Enterprise, Trade and Investment (DETI). This enabled the Department to grant licenses for exploration and development of minerals. There are a few exceptions to this legislation which mean that minerals in the following categories were not vested to the Department and do not require the granting of a license from DETI to be extracted:
- Gold and silver resources which belong to the crown estate.
 - Mineral deposits which were being worked at the time of the commencement of the Act. These were mainly salt deposits.
 - Common substances e.g. Sand, gravel, crushed rock, brick clays, agricultural soil.
 - Mines belonging to any religious or educational institution.

Waste from Extractive Industries

- 2.5** *The Mining Waste Directive (2006/21/EC)* was adopted by the European Union in March 2006 with the goal of regulating waste from extractive industries in order to prevent or reduce as far as possible, any adverse effects on the environment. In order to comply with this directive, the *Planning (Management of Waste from Extractive Industries) Regulations (Northern Ireland) 2010* were introduced. These regulations were intended to ensure that all waste resulting from extractive industries was managed in a way which was compliant with the 2006 directive.
- 2.6** The 2010 regulations were replaced by the *Planning (Management of Waste from Extractive Industries) Regulations (Northern Ireland) 2015* from 1st April 2015. Regulation 4 of this legislation states that planning permission will not be granted unless a waste management plan (WMP) has been submitted and approved by the Council.

Review of Old Mineral Permissions (ROMPS)

- 2.7** The Environmental Impact Assessment (EIA) Directive has been in force throughout the EU since 1985. It was implemented in Northern Ireland by the Planning (Assessment of Environmental Effects) Regulations (Northern Ireland) 1989 and later by the Planning (Environmental Impact Assessment) Regulations (Northern Ireland) 1999 (revoked and re-enacted in a 2015 version).
- 2.8** These pieces of legislation mean that when assessing applications for mineral development, there is a more stringent level of consideration given to the environmental impacts of that development than was previously the case.
- 2.9** Because of the introduction of the 1989 regulations along with the formation of a specialised minerals planning unit within Planning Service, it is generally accepted that planning permissions granted for quarrying development since the early 1990's have adequate environmental conditions attached. Permissions granted during the 70's and 80's, following the implementation of the 1973 Order (see para 2.3) do not have adequate conditions attached and subsequently need to be reviewed (Review of Old Mineral Permissions / ROMPS). For instance, it is accepted that very few conditions granted in the 1970's have adequate conditions relating to noise impacts attached.
- 2.10** The Planning Act (Northern Ireland) 2011 makes provision for these reviews of old permissions to be undertaken. The legislation makes provision for mineral sites to be classed as phase 1 sites if they had been granted approval before 31st December 1980 and phase 2 sites if they have been granted approval after 31st December 1980 but before 31st December 1993. The pieces of legislation both state that all owners of phase 1 and phase 2 sites must apply to the planning authority to have the conditions to which their permission relates reviewed.
- 2.11** However, the Act requires further legislation in the form of an Order, before ROMPS can be undertaken. The Environment Minister has stated that whilst

this legislation is not currently being implemented, no decision has been taken NOT to implement the legislation at some point in the future and has instructed Departmental officials to examine how best to implement ROMPS in the new two tier planning system.¹

- 2.12** Approximately 370 mineral permissions were granted between the 1960's and the early 1990's, with Mid Ulster District having 80 of these which equates to approximately 20% of all the mineral permissions which are to be subjected to ROMPS².

FORMER LGD	NUMBER OF OLD PERMISSIONS	% OF NORTHERN IRELAND AS A WHOLE
COOKSTOWN	42	11%
DUNGANNON	20	5%
MAGHERAFELT	18	5%

Mineral Resource Map

- 2.13** The Mineral Resources Map for Northern Ireland was produced by the Geological Survey for Northern Ireland in 2012. It comprises six sheets, one for each county and the relevant information for Mid Ulster has been extracted and drawn together in Appendix C of this paper. These maps are 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 be noted however that the data depicted on the map relates only to inferred extent and location of a particular mineral resource. Inferred resources are those defined from geological information and assumed but not verified geological continuity. Thus the inferred boundaries are approximate and only indicate the areas within which potentially working workable minerals may occur.

Planning Policy Context

Regional Development Strategy 2035

- 2.14** The Regional Development Strategy 2035 (RDS) does not provide any explicit policy aims or objectives in relation to minerals but does recognise the importance of the rural area and that rural industries and enterprises should be facilitated at appropriate locations where their impact on the environment and important landscapes are kept to a minimum (SFG 13).

Planning Strategy for Rural Northern Ireland (PSRNI)

¹ AQW 47847/11-15 by Stephen Agnew MLA to Minister Mark H Durkhan – Tabled 26/6/15.

<http://m.niassembly.gov.uk/questions/writtensearchresults.aspx?&qf=0&qfv=1&ref=AQW%2047847/11-15>

²<http://www.planningni.gov.uk/downloads/news-legislation-planreform-romp.pdf>

2.15 In the absence of a planning policy statement for mineral development, the PSRNI constitutes prevailing planning policy. The concept of sustainability is a notable element of the strategy, however it does recognise the difficulties this can pose in the context of mineral development. 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 economically viable and practical. The PSRNI largely mirrors the provisions of the recently adopted Strategic Planning Policy Statement (SPPS) (considered in detail below) in that it recognizes the need to facilitate mineral development while also affording sufficient protection to the environment. The main difference between the two documents is the stipulation within the Strategic Planning Policy Statement (SPPS) that there is a presumption against development for the extraction of hydrocarbons (including “fracking”).

2.16 The provisions of the PSRNI relevant to mineral development are laid out in the table below together with the corresponding paragraphs of the SPPS.

PSRNI POLICY	POLICY DETAIL	INCLUDED IN SPPS
MIN 1 – ENVIRONMENTAL PROTECTION	It is important to identify sites which are subject of mineral proposals and which also have historical, environmental, scientific interest. The impacts which development would have on key sites within these areas are important considerations and extensions of existing sites are preferred to new developments	YES - 6.158
MIN 2 – VISUAL IMPLICATIONS	Parts of the country which are of significant beauty tend by their nature to contain minerals for development. Attention must be paid to the impact which mineral development will have on the visual merit of these locations. Development which would damage skylines and lead to stockpiling of plant machinery and other infrastructure, should be resisted.	YES – 6.165
MIN 3 – AREAS OF CONSTRAINT	In areas of significant beauty or environmental sensitivity, areas of mineral constraint should be designated wherein there will be a presumption against mineral development. However, some scope may exist for permitting development in these areas if it is short term in nature and has limited impacts.	YES – 6.153
MIN 4 – VALUABLE MINERALS	Where minerals which are of significant value to the economy are located in a designated environmental area, then, whilst there is not a presumption against development, due weight and consideration will be given to that zoning.	YES – 6.157
MIN 5 - MINERAL RESERVES	Where valuable minerals have been identified, then surface development which would sterilise	YES – 6.155

	these minerals and prohibit future development will not be permitted.	
MIN 6 – SAFETY AND AMENITY	Consideration must be given to compatibility with adjacent land uses, particularly housing. Where mineral development would be incompatible in terms of amenity because of things like noise, dust, vibrations, then permission is likely to be refused. Similarly, where over ground development is proposed but is incompatible with existing underground operations, this should be refused.	YES – 6.159
MIN 7 - TRAFFIC	Where traffic resulting from mineral development would be sufficient to prejudice road safety, this will mean permission is refused. Consideration must be given to the importance of the mineral to the local economy and whether alternative sites can be found	YES – 6.160
MIN 8 - RESTORATION	Applications for mineral development must include proposals for restoration	YES – 6.167

Strategic Planning Policy Statement (SPPS)

- 2.17** The SPPS acknowledges that mineral development can make a significant contribution to the local economy in various ways; not least by providing materials for construction such as sand, gravel and crushed rock. Because of this fact, it is important to facilitate mineral development but in a sustainable fashion which balances with the need to protect the environment. Natural mineral resources should still be developed but not at the overriding cost of the environment.
- 2.18** The main challenges facing the planning system in relation to mineral extraction include the need to address amenity issues caused by extraction. This can be problematic because mineral development, by its nature, can only happen at specific sites where the actual minerals are located and therefore the identification of alternative sites can be difficult.
- 2.19** Another challenge presented by mineral development is the need to restore sites appropriately after the extraction process has been completed.
- 2.20** Bearing all this in mind, the strategic objectives of the SPPS in relation to mineral development are as follows;
- Facilitate sustainable minerals development through balancing the need for specific minerals development proposals against the need to safeguard the environment;
 - Minimise impacts of mineral development on local communities, landscape quality, built and natural heritage, and the water environment, and
 - Secure the sustainable and safe restoration, including appropriate re-use of mineral sites, at the earliest opportunity.

SPPS Strategic Policy in the preparation of Local Development Plans

- 2.21** The SPPS states that the policy approach for minerals development, including peat extraction from bog lands, must be to balance the need for mineral resources against the need to protect and conserve the environment. The SPPS requires that LDP's should bring forward policies and proposals that reflect the policy approach of the SPPS, tailored to the specific circumstances of the plan area.
- 2.22** In particular the plan should ensure that sufficient local supplies of aggregates can be made available for use within the local area and where appropriate the regional market and beyond to meet likely future development needs over the plan period. The plan also should ensure that existing mineral supplies which are of economic or conservation value are safeguarded and seek to ensure that workable mineral resources are not sterilised by other surface development which would prejudice future exploitation.
- 2.23** The SPPS states that the LDP should also identify areas which should be protected from minerals development because of their intrinsic landscape, amenity, scientific, or heritage value. These areas are normally referred to as Areas of Constraint on Mineral Development (ACMD). The SPPS states that there should be a general presumption against minerals developments in such areas however where a designated area such as an Area of Outstanding Natural Beauty (AONB) covers expansive tracts of land, the Plan should carefully consider the scope for some minerals development that avoids 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. The Options open to Mid Ulster Council on the approach to be taken to ACMD's is discussed in Section 6.0 of this paper.
- 2.24** The SPPS also states that in addition to specifying areas where mineral development would be less suitable, LDP's may also specify areas where mineral development would be suitable. These will normally be areas where there will be less impacts on nearby amenity or on the environmentally sensitive areas and will have good accessibility to strategic transport networks.
- 2.25** The SPPS notes that from time to time minerals may be discovered where they are particularly valuable to the economy and their exploitation may create environmental effects which are particular to the methods of extraction or treatment. There will not be a presumptions against their exploitation in any area however in considering a proposal where the site is within a statutory policy area due weight will be given to the reason for the zoning. It is important to note however that the SPPS states a presumption against the exploitation of unconventional hydrocarbon extraction (commonly referred to as 'fracking') until the Department is satisfied there is sufficient and robust evidence on all environmental impacts.
- 2.26** Proposals for the extraction of peat for sale will only be permitted where the extraction is consistent with the protection of boglands valuable to nature

conservation interests, and with the protection of landscape quality particularly in AONB's. The policies contained in PPS 2 – Planning and Nature Conservation provide protection for a full range of sites of nature conservation importance, including peatlands and it is detailed further below.

- 2.27** Proposals for minerals development must also have particular regard to the safety and amenity of the occupants of developments in close proximity to the mineral workings. Minerals development likely to compromise safety or to significantly impair the amenity of people living or working in proximity to the site will not normally be acceptable. Such adverse impacts could result from noise, vibration and dust arising through excavation, processing or transporting of materials. Where such impacts are judged to be incompatible with standards of amenity acceptable to the planning authority, planning permission should be refused, unless the developer can demonstrate adequate means of mitigation.
- 2.28** Visual intrusion is often the most significant environmental impact and this should be avoided in all mineral development with particular attention being given to the importance of preserving skylines and avoiding unnecessary and unsightly stockpiling of plant machinery and infrastructure.
- 2.29** Where approval is granted for mineral development, appropriate conditions should be attached to ensure that sufficient restoration measures are included as part of the development in order to leave the site in a visually pleasing manner after development has been carried out.

Planning Policy Statement 2 (PPS2) Planning and Nature Conservation

- 2.30** PPS2 is an important consideration in relation to cases regarding peat extraction and Policy NH5 Habitats, Species or Features of Natural Heritage Importance is of direct relevance. This policy states planning permission will only be granted for a development proposal which is not likely to result in the unacceptable adverse impact on, or damage to known: priority habitats; priority species; active peatland; ancient and long-established woodland; features of earth science conservation importance; features of the landscape which are of major importance for wild flora and fauna; rare or threatened native species; wetlands (includes river corridors); or other natural heritage features worthy of protection.
- 2.31** A development proposal which is likely to result in an unacceptable adverse impact on, or damage to, habitats, species or features may only be permitted where the benefits of the proposed development outweigh the value of the habitat, species or feature. In such cases, appropriate mitigation and/or compensatory measures will be required.

3.0 Area Plans

Magherafelt Area Plan 2015 (MAP)

- 3.1** MAP does not designate any Areas of Constraint on Mineral Development (ACMD). This follows the PAC report into the draft plan in 2011 which is

discussed at Section 6.0 of this paper. It does contain a plan policy (MN1) which states that where potential exists for hydrocarbon exploitation, each application will be treated on its own merits and the short and long terms effects of exploitation will be considered. Applications which will significantly harm the environment will not be permitted. However, the provisions of the newly published SPPS, in relation to hydrocarbon exploitation, will take precedence over this plan policy.

Cookstown Area Plan 2010 (CAP)

- 3.2** CAP designates areas of mineral constraint at 5 different locations and these are listed below and shown on the map in Appendix E;

- Ballinderry
- Camlough
- Cavanacaw / Tandragee
- Killucan
- Sperrin

Plan Policy MN1 states that within these areas, applications for mineral development will be restricted in line with prevailing planning policy. This policy also states that the provisions which apply to Areas of Constraint on Mineral Development will also apply to ASSI's which lie outside the limits of ACMD'S. There is also 1 mineral policy area designated within the Area Plan and within this area, surface development which would prohibit future mineral exploitation will be prohibited. This area is designated at Ballyreagh, south of Cookstown and is intended to protect limestone reserves currently being exploited by Blue Circle.

- 3.3** Plan Policy MN3 states that where hydrocarbon extraction is identified, sink wells will be considered to identify the exact extent of any potential benefits. There will not be a presumption against development, rather each application will be treated on its own merits. However, the provisions of the newly published SPPS, in relation to hydrocarbon exploitation, will take precedence over this plan policy.

Dungannon and South Tyrone Area Plan (DSTAP) 2010

- 3.4** Dungannon and South Tyrone is the main mineral source of the clay brick industry in Northern Ireland with reserves concentrated to the north west of Coalisland. Building and road stone aggregates are produced from a number of quarries and commercial peat is extracted from the low lying areas to the south west of Lough Neagh.
- 3.5** The Plan advises that in and around the settlement of Coalisland, no guarantee can be given that land which is zoned for development is free from the threat of subsidence resulting from former mining operations being located underground. Developers are advised to take necessary precautions to ensure that subsidence does not affect any development.

3.5 DSTAP designates areas of mineral constraint at 6 different locations and these are listed below and shown on the map in Appendix E;

- Clogher Valley
- Western shores of Lough Neagh
- Benburb ASSI
- Fardross Stream ASSI
- Glenmore Wood ASSI
- SlieveBeagh ASSI
-

Plan Policy MN1 states that within these areas, applications for mineral development will be restricted in line with prevailing planning policy.

3.6 There are also 2 mineral policy areas designated within the Area Plan and within this area, surface development which would prohibit future mineral exploitation will be prohibited. These areas are listed below and shown on the map in Appendix E;

- Derry, outside Coalisland, between the Brackaville and Derryvale Roads, which was designated to protect clay beds which supply the clay brick industry
- Derraghadoan – to protect shale extraction for the cement industry.

3.7 Plan Policy MN3 states that where hydrocarbon extraction is identified, sink wells will be considered to identify the exact extent of any potential benefits. There will not be a presumption against development, rather each application will be treated on its own merits. However, the provisions of the newly published SPPS, in relation to hydrocarbon exploitation, will take precedence over this plan policy.

4.0 Economic Role of Minerals in Northern Ireland

4.1 As stated in the SPPS, minerals play a vital economic role in Northern Ireland. Minerals provide raw materials for the construction, manufacturing, energy creation and agricultural sectors. Each of these sectors generate employment and stimulate other parts of our economy. In Northern Ireland the extraction of minerals and their exploration makes a very significant contribution to property and quality of life given the large proportion of income derived from this industry and particularly in rural areas.

4.2 The Quarry Products Association Northern Ireland (QPANI) have estimated that quarries in Northern Ireland produce aggregates to the value of around £84million each year³ and the Geological Survey of Northern Ireland (GSNI) estimate that the total turnover from the Quarry and Quarry Products Sector in

³ Spreadsheet produced by QPANI for MUDC, based on information taken from DETI's 2011 Mineral Statement. Information has been calculated on a "pro rata" basis from the last 10 mineral statements, given that not all quarries in Northern Ireland responded to the 2011 Mineral Statement. See Appendix B for Spreadsheet.

Northern Ireland is around £630 million, which equates to about 3% of the GDP⁴.

- 4.3** QPANI also estimate that the total number of people employed by the quarrying industry is 4,276.⁵ The Quarterly Employment Survey (QES) produced by NISRA in March of 2015 estimates the amount of people employed directly in quarrying is around 1,790 and the amount of people employed in the manufacture of mineral products is 4,450⁶. This would suggest that 6,240 jobs are created either directly or indirectly by the quarrying and mineral industries. Given that the QPANI figures are based on incomplete data from the 2011 Mineral Statement, the QES figure of 6,240 may be more accurate.
- 4.4** With specific reference to job creation, another economic advantage of quarrying activity is that, according to QPANI, 75% of the total number of quarries and pits in Northern Ireland are located in areas of targeted social need⁷, thus providing valuable employment opportunities in these areas.
- 4.5** There are around 160 quarries and sand pits in Northern Ireland and they produce approximately 24 million tonnes of aggregates each year. In a typical year, Northern Ireland's quarry network supports:
- The building of 12,000 new homes (a new home requires approx. 50 tonnes of aggregates)
 - Improvements to airports, roads and the rail network
 - Improvements to schools, universities, hospitals
- 4.6** In other words, the construction industry in Northern Ireland, which provides massive employment and is responsible for around 10% of the country's GDP⁸, is completely reliant on quarrying and the development of minerals. Without mineral development, the construction industry would not have the fundamental materials it needs such as sand, gravel, limestone and crushed rock. A successful local quarrying industry means raw materials come to local projects sooner and more cheaply, lowering the cost of construction and supporting jobs.
- 4.7** It is clear then that the development of mineral resources has indisputable benefits for the Northern Ireland economy in terms of direct and indirect job creation as well as allowing us to continually improve our housing stock and infrastructure. Whilst minerals are therefore essential to support economic growth in Northern Ireland their development and operation must be balanced against the significant effects they can have on the environment and on amenity. Continued mineral development, which is sustainable and respects

⁴ Information taken from presentation given to MUDC by GSNI

⁵ Spreadsheet produced by QPANI for MUDC, based on information taken from DETI's 2011 Mineral Statement. Information has been calculated on a "pro rata" basis given that not all quarries in Northern Ireland responded to the 2011 Mineral Statement. See Appendix 1 for Spreadsheet. Figure also provided in the above presentation from GSNI

⁶ Quarterly Employment Survey (QES), NISRA, 17/6/15, P. 4-5

⁷ www.qpani.org/pro_figures01.htm

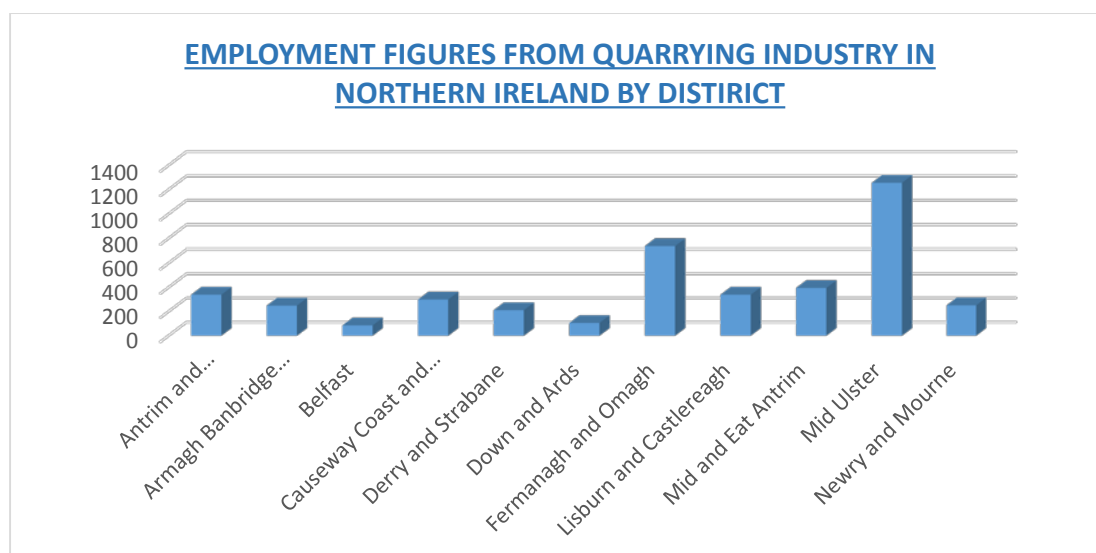
⁸ See above link

the environment and the amenity of residents is an essential part of the economic outlook for Northern Ireland.

5.0 Minerals in Mid Ulster

Economic Role

- 5.1** Figures obtained from QPANI suggests that there are 31 quarrying companies and 41 quarry sites operating in the Mid Ulster District⁹ and that there are approximately 3.2 million tonnes of aggregates produced each year. This equates to an annual value of approximately £10.2 million and creates employment for 1,257 people in the quarrying industry.¹⁰ There are only 4 districts which produce a higher monetary value of aggregates than Mid Ulster. However, with 1,257 employees, the quarrying industry in Mid Ulster creates more employment than in any other district. The graph below shows the relative importance of mineral related activity to levels of employment in Mid Ulster.



Source – figures from QPANI (see appendix B)

- 5.2** The presence of regionally important sand / gravel and clay resources within the District which has meant that mining and quarrying is a significant employer. In providing employment, Mid Ulster has a higher proportion of jobs in manufacturing than the regional average. This is a key strength of the new Council area and it has proved to be more resilient than other sectors such as construction which has been seriously affected by the downturn. Within the district over a quarter of all jobs are in manufacturing compared to a regional average of fewer than 11%. The presence of regionally important sand and gravel and clay resources within the District has meant that mining and

⁹ Figures filtered from a full list of quarry sites in NI, provided by QPANI, see APPENDIX A

¹⁰ Spreadsheet produced by QPANI for MUDC, Information has been calculated on a “pro rata” basis given that the most recent mineral statement (2011) was at the height of the recession and therefore was a poor year which was not particularly representative. See Appendix B

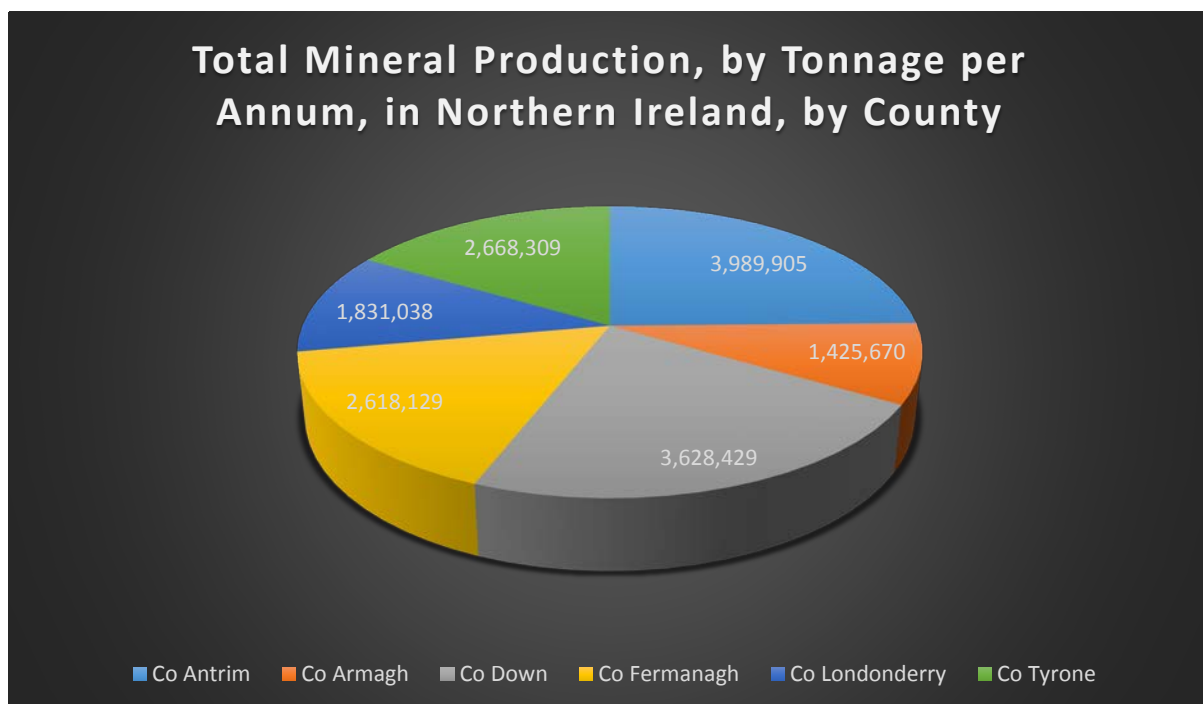
quarrying is a significant employer along with associated concrete production such as Lafarge Cement in Cookstown and Creagh Concrete in Ardboe and companies specialising in the manufacture of mining and quarrying machinery such as Sandvik and Terex /Powerscreen.

- 5.3** In addition, Mid Ulster has a higher proportion of people employed in the construction industry than the Northern Ireland average. Figures in the Councils recent position paper on Employment and Economic Development, suggest that the construction industry provides 3,808 jobs in Mid Ulster, which accounts for 7.9% of the total employment base. This figure is considerably higher than (almost double) the Northern Ireland average of 4.25%¹¹
- 5.4** With such a high economic dependence on the mineral and construction in Mid Ulster it is important that the LDP recognises the significant economic benefits of the mineral development while ensuring that the challenges arising from this form of development are addressed either by way of appropriate zonings and policies which are discussed later in the paper and that a sustainable approach to mineral development is facilitated.

Availability of Minerals in Mid Ulster

- 5.5** It should be noted that where the following paragraphs refer to mineral resources which exist underground in parts of Mid Ulster, this information has been taken from the Mineral Resource Map (MRP). The MRP 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 inferred extent and location of a particular mineral resource. Inferred resources are those defined from geological information and assumed, but not verified geological continuity. Thus the inferred boundaries are approximate and only indicate the areas within which potentially working workable minerals may occur. These issues should be borne in mind when reading this section. Similarly, figures regarding the % output of various counties in relation to various types of mineral are taken from the Mineral Statement of 2010. DETI have advised that not all quarries in Northern Ireland provide responses to the Mineral Statement and therefore the figures in this paper are not up-to-date or fully reflective of the full picture in Mid Ulster or indeed in Northern Ireland.
- 5.6** Counties Tyrone and Londonderry, which make up our district are responsible together for producing 28% of all minerals in Northern Ireland. The two counties which contribute most to Northern Ireland's mineral production are Antrim (25%) and Down (22%).

¹¹ MUDC Position Paper on Employment and Economic Development, 2nd February 2015, p. 12

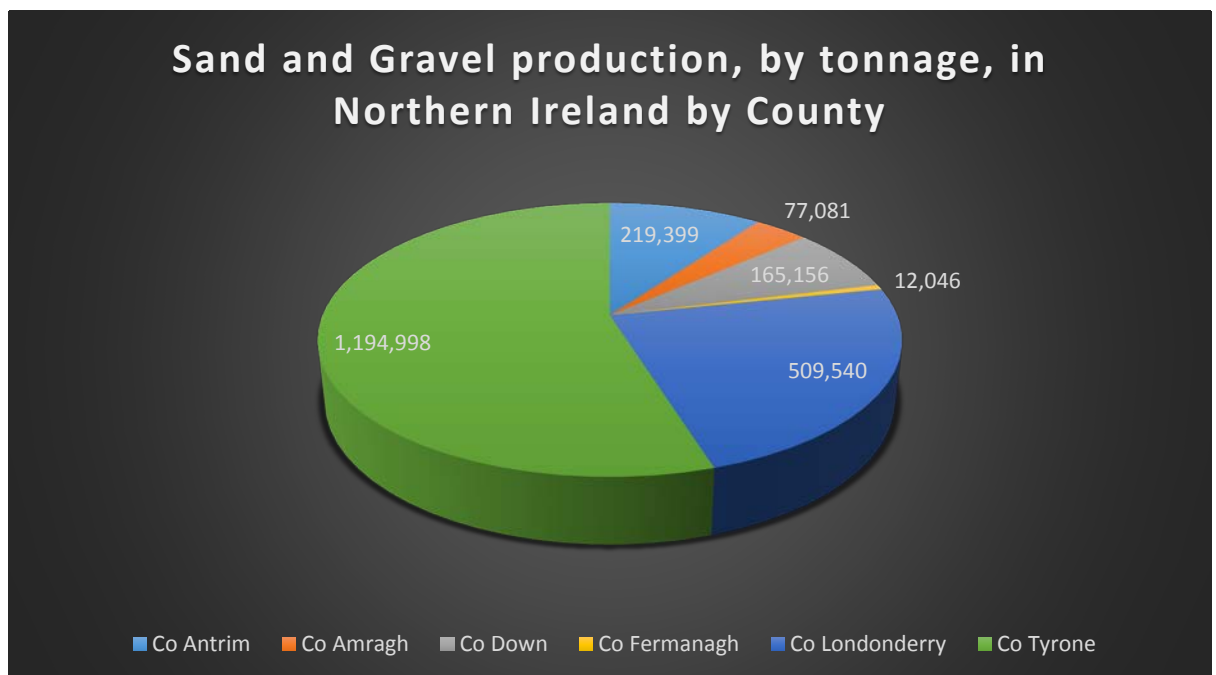


(SOURCE - 2010 DETI MINERAL STATEMENT)

5.7 Sand and Gravel –The counties of Tyrone and Londonderry are the main producers of sand and gravel in Northern Ireland. These two counties produce around 78% of the country's sand and gravel extracts (Tyrone – 55%, Londonderry – 23%).¹² Unsurprisingly then, the majority of mineral extraction in Mid Ulster is sand and gravel and is focussed on the north and west of the District in and around areas such as Kildress, Orritor, Dunamore and Lough Fea. This is because the geology of these areas consists mainly of types of igneous rock which yield high specification aggregates. These areas of igneous rock are also interspersed with glacial deposits of sand and gravel.¹³ These areas are therefore home to a proliferation of sand and gravel quarries. The location and nature of all quarries in Mid Ulster is laid out in the map in Appendix D.

¹² DETI Mineral Statement 2010.

¹³ See Appendix C



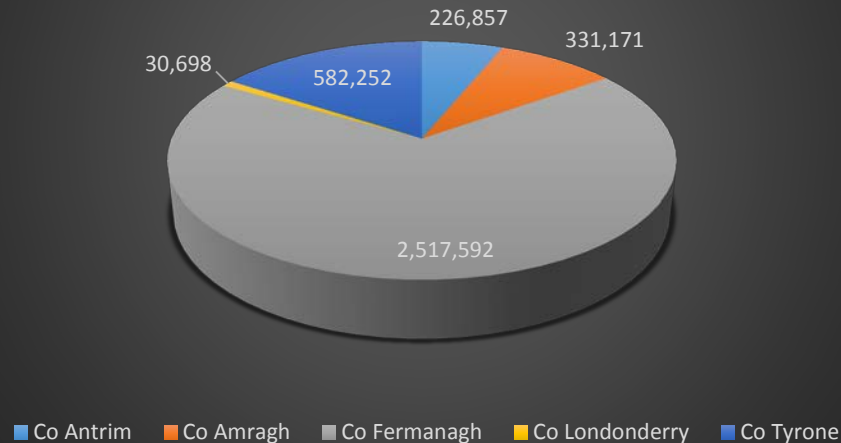
(SOURCE - DETI 2010 MINERAL STATEMENT)

5.8 Limestone – In contrast to sand and gravel extraction, Tyrone and Londonderry produce very little of the country's limestone output. Fermanagh produces 68% of the NI total whilst Tyrone only produces 15.7% and Londonderry only produces 1.2%.¹⁴ Large swathes of limestone deposits exist in south Tyrone close to Aughnacloy, Caledon, Eglish, Carnteel, and to the north of Ballygawley. Large deposits are also located to the south of Cookstown, extending to Dungannon as well as between Desertmartin and Maghera¹⁵. There are relatively few large scale limestone extraction enterprises ongoing within the District, despite the availability of these considerable resources.

¹⁴ DETI Mineral Statement 2010.

¹⁵ See Appendix C

Limestone production, by tonnage, in Northern Ireland by County

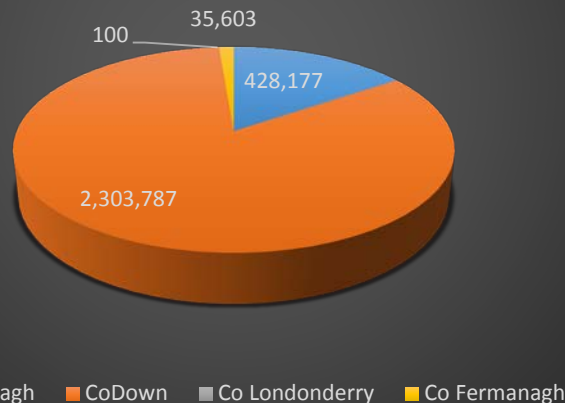


(SOURCE - DETI 2010 MINERAL STATEMENT)

- 5.9 Coal / Clay Beds** – Deposits of shallow coal and fireclay are found in Coalisland and historically this supported a strong coal mining tradition in the area. Clay deposits are also found to the north east of Dungannon, the area which was home to the well-known Tyrone Brick works, once the largest manufacturer of clay brick products in Ireland before the economic downturn.
- 5.10 Sandstone** – Mid Ulster produces virtually none of Northern Ireland's sandstone, despite containing some valuable resources. According to the 2010 mineral statement, none of Northern Ireland's sandstone is produced in Co Tyrone with Co Londonderry only producing 0.003%. Co. Down is the largest sandstone producer with around 83% of the NI total. There are deposits of sandstone in Mid Ulster, according to MRM, with the main concentrations being located to the NW of Dungannon, near Cappagh and Ballygalwey. There is one sandstone quarry in this area, at Shanmaghera. Sandstone is also located to the north of Tobermore and Drpaerstown, south of Moneymore towards Cookstown as well as in numerous swathes in south Tyrone¹⁶.

¹⁶ See Appendix C

Sandstone Production, by Tonnage per Annum as per the 2010 Mineral Statement, in Northern Ireland



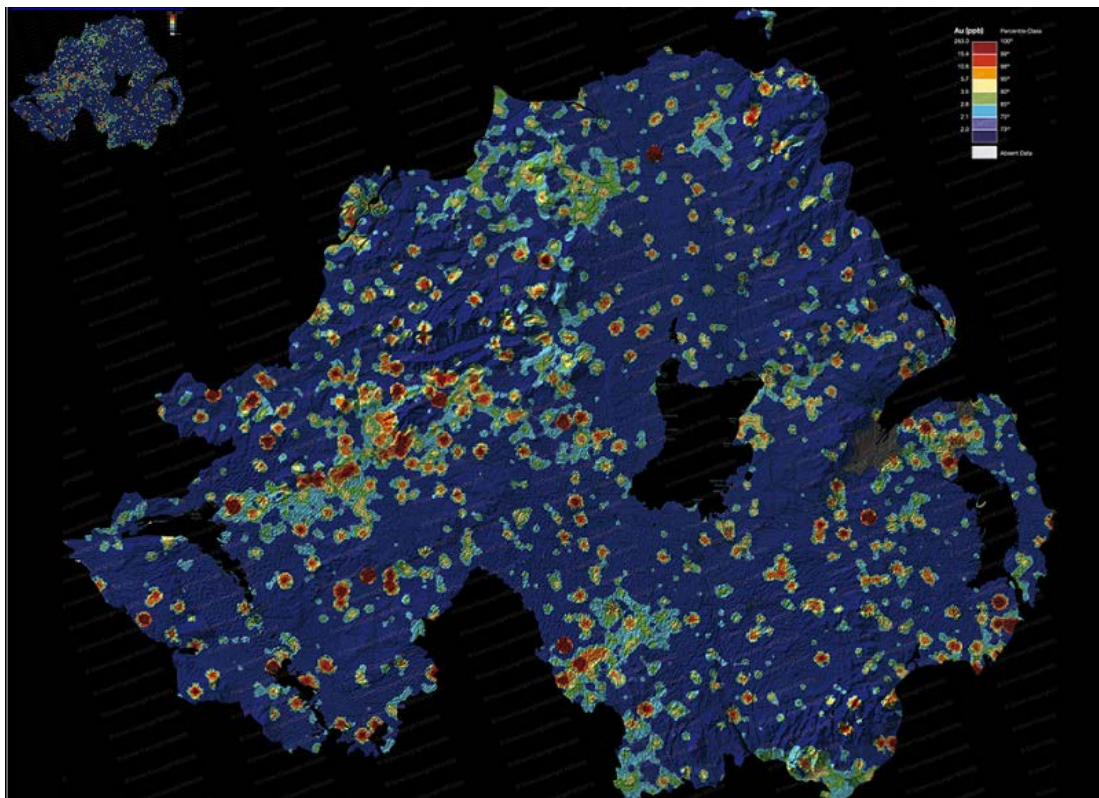
(SOURCE - 2010 DETI MINERAL STATEMENT)

- 5.11 Other Rock Types (Basalt, Granite etc.)** – MRM shows large swathes of igneous rock formations extending from the north east of the district to the lough shore region and across to from Churchtown to the Broughderg area.
- 5.12 Lignite** - Lignite is often referred to as brown coal and is a soft combustible sedimentary rock. It does not have the same heat content as other combustible fuels such as coal or peat and is used mainly in the generation of electricity. Lignite resources have been identified at three main areas in Northern Ireland; Ballymoney, Crumlin and Coagh. The controversy of the Ballymoney lignite proposals is well known but the Coagh deposits are the least developed of the three locations identified. Significant resources also exist under Lough Neagh. Because of its low energy density and typically high moisture content, brown coal /lignite is inefficient to transport and is not traded extensively on the world market compared with higher coal grades. It is often burned in power stations near the mine. This means that proposals to extract lignite often have significant local environmental consequences and are therefore, controversial in the local area.
- 5.13** It should be noted that a large proportion of the lignite resources identified on the mineral resource map are located in or close to the European RAMSAR site at Lough Neagh and the surrounding wetlands. The significance of this designation would be an important factor in the consideration of any interest to exploit the lignite reserves in the area.

Valuable Minerals

- 5.14 GOLD** –The results of the 1976 GSNI survey of areas underlain by the Neoproterozoic Dalradian rocks, confirmed the potential for gold bearing rock in the Sperrin Mountain areas of County Tyrone and Londonderry. These areas are generally split between our district and the Fermanagh & Omagh District. There are two significant gold mining operations ongoing at Curraghinalt and Cavanacaw, both within the Fermanagh & Omagh District, while there are no similar operations ongoing in the Mid Ulster District.
- 5.15** The map below shows the availability of gold in soils across Northern Ireland. The dark red colours indicate the highest potential for gold to exist. At a glance, it is evident that the Sperrin Mountains are the most likely location for gold resources, with Mid Ulster containing a few “hotspots” while the majority are located in Fermanagh and Omagh District.

Map showing availability of gold in soils in Northern Ireland



Source - British Geological Survey

6.0 Conclusions and Key Findings

6.1 This paper has shown that minerals development and extraction in Mid Ulster makes a significant contribution to the local economy. The statistical information currently available to us has meant that it has not been possible to quantify the amount of minerals required over the Plan period up to 2030. There will of course be a need to ensure that supplies of raw materials are available at a rate to react to any economic growth. Notably, the presence of regionally important sand and gravel and clay resources within the District has meant that mining and quarrying is a significant employer along with associated concrete production such as Lafarge Cement in Cookstown and Creagh Concrete in Ardboe and companies specialising in the manufacture of mining and quarrying machinery such as Sandvik and Terex /Powerscreen. The figures in this paper reflects this position with 1,257 employees, the quarrying industry in Mid Ulster creates more employment than in any other district.

6.2 In line with the SPPS the LDP will need to facilitate sustainable development through balancing the need for specific minerals development against the need to safeguard the environment. One of the key issues that the new LDP will consider is the approach that should be taken in relation to the identification of areas which should be protected from minerals development because of their intrinsic landscape, amenity, scientific or heritage value. It is considered that there are a number of options available to the Council in addressing the issue of Areas of Constraint on Mineral Development (ACMD's) as follows:

OPTION 1 – Adopt all current Areas of Mineral Constraint as per the three existing Area Plans. The areas that would be zoned under this option are laid out in Appendix F.

OPTION 2 – Designate Areas of Mineral Constraint at all those areas that were identified as vulnerable landscapes which are sensitive to change in the Landscape Assessment Paper presented to council in September 2015. The areas that would be zoned under this option are laid out in Appendix G.

OPTION 3 – As in option 2, designate Areas of Mineral Constraint at all of those areas which were identified as vulnerable landscapes but exclude those areas which are currently experiencing high levels of quarrying activity. The areas to be zoned under this option are laid out in Appendix H

6.3 Simply imposing blanket ACMD's across environmental designations is not considered to be the correct approach because by doing this, insufficient consideration will have been given to the balance which must be achieved between environmental and economic concerns. The hazards of this approach have been highlighted in a report by the Planning Appeals Commission (PAC) into the draft Magherafelt Area Plan 2015. The same PAC report also highlighted that the imposition of ACMD's in general, is potentially erroneous given the fact that insufficient data exists regarding the exact extent of mineral

reserves across Northern Ireland. The publication of the Mineral Resource Map in May 2012 began to address this but further investigation is required.

- 6.4** By adopting Option 1, which is essentially a reflection of the position within the 3 current area plans,, the former Magherafelt District would be left free from Areas of Constraint, whilst there would be areas of constraint in the former Cookstown and Dungannon Districts. This would result in the scenario where a large portion of the only AONB is not protected from mineral development, while a smaller portion of it (in the former Cookstown District) would be. This would not be a uniform approach across the district. Similarly, areas considered to contain highly vulnerable landscapes would be left unprotected from mineral development, including the Dungannon Drumlins and Hills, Brougher Mountain, the Cookstown and Magherafelt Farmlands towards the Sperrins and the Blackwater Valley.
- 6.5** By adopting Option 2, a considerable degree of protection would be afforded to the vulnerable areas of the district, including the AONB, all SAC's, SPA's and RAMSAR sites. However, this option would mean that the area which currently has the greatest concentration of quarrying activity would be included as an Area of Constraint on Mineral Development. This approach could impact negatively on the future operation of these sites and may limit the ability of these sites to expand to provide minerals (mostly sand and gravel) for the local construction industry, thus possibly impacting on the economic prosperity of the district as a whole. One may also question the rationale for including such areas where they is already a considerable degree of mineral development on the ground.
- 6.6** A balanced approach would be Option 3 which would designate areas of constraint generally along the lines of the existing vulnerable landscape areas but would also recognise the areas of existing quarrying activity on the ground and would exclude them from the zoning, thus allowing the local industry to continue at these locations. It is therefore recommended that Option 3 be adopted as the approach taken to ACMD's in the new LDP as it is considered to provide a balance between the need for specific minerals development with the need to safeguard the environment.
- 6.7** It is important to note that whilst Option 2 provides protection for all SAC's, SPA's and RAMSAR sites, none of the three options provides widespread protection for all the ASSI's in the District. It is envisaged that this protection could provide by the inclusion of a policy presumption against mineral development in ASSI's rather than through individual designations at specific sites.
- 6.8** In order to explore the issue of the amount of mineral required over the plan period up to 2030 it is recommended that consultation take place with Quarry Products Association Northern Ireland (QPANI) who are the trade association body for approximately 95% of the quarry operators in Mid Ulster and will be in a position to reflect the position of the industry. It is also recommended that they be consulted on the Options set out in this paper for the identification of ACMD's.

6.9 In addition to the above recommendations, and in line with the SPPS, it is also recommended that the approach to mineral development in the LDP should be to:

- Minimise the adverse impact of mineral development on the amenity of neighbouring communities;
- Identify and safeguard mineral resources which are of economic or conservation value;
- Secure the sustainable and safe restoration of mineral sites in a timely manner, including appropriate re-use.

APPENDICES

APPENDIX A -LIST OF ALL OPERATIONAL QUARRY COMPANIES AND QUARRY SITES IN MID ULSTER (SUPPLIED BY QPANI)

QUARRY COMPANIES

Acheson and Glover Ltd	127 Crievehill Road		Fivemiletown
Barrack Hill Quarries Ltd	96 Largylea Road		Dungannon
Barrett Concrete Ltd	128 Eglish Road		Dungannon
Blackhill Aggregates Ltd	4 Doons Road		Cookstown
Cookstown Aggregates	4 Doons Road		Cookstown
Core Aggregates	25 Crancussy Road		Cookstown
Douglas Acheson Ltd	4 Molesworth Street		Cookstown
Elliot Bros	33 Wood Road	Tobermore	Magherafelt
F Wilson	Drum Road	Dunamore	Cookstown
FP McCann Ltd	Head Office, 3 Drumard Road	Knockloughrim	Magherafelt
George Crawford and Son	Eskrahoole Quarry	Dromore Middle	Clogher
Heron Bros	2 St. Patricks Street		Draperstown
Irwins Quality Aggregates Ltd	55 Gortgonis Road		Coalisland
J Costello	23 Strawmore Road		Draperstown
J Gourley& Son	Tulnagee Quarry	52 Tulnagee Road, Moneymore	Magherafelt
J P Shields	177 Annagher Road		Coalisland
J Watterson	Ballybriest No. 1	Ballybriest	Cookstown
Lafarge Cement (Ireland)	Cookstown Cement Works, Limestone Quarry	29 Sandholes Road	Cookstown
Loughdoo Aggregates	Loughdoo Road	Tulnacross	Cookstown
M.P. Coleman Ltd	Brigh Quarry	Brigh Road	Stewartstown
Michael McAleer	204 Camlough Road		Pomeroy
Milburn Concrete Ltd.	47 Orritor Road		Cookstown

P J Walls	53 Waterfoot Road		Magherafelt
P Keenan & Sons	Head Office, Rocktown Quarry	35 Rocktown Road	Knockloughrim
R J Donaghy & Sons	71b Lissan Road		Cookstown
R.Hogg and Sons Ltd.	60 Tobermore Road		Magherafelt
Reid Brothers	Gortagammon Road	Tullyhogue	Cookstown
Sluggan Sand & Gravel Limited	199 Termon Road		Pomeroy
Stanley Bell & Sons Ltd	28 Ballynagilly Road		Cookstown
Tobermore Concrete Products Ltd	Head Office	2 Lisnamuck Road	Tobermore

QUARRY SITES

OPERATOR	SITE_ADDRE	Quarry_Nam	Aggregate
A T Sand and Gravel Limited	56 Cavanoneill Road Pomeroy Dungannon		
Acheson and Glover Ltd	210 Camlough Road Pomeroy BT70 2SS	Evishanoran No 4	limestone
Acheson D. (Navan Quarries) Ltd	232 Drum Road Cookstown BT80 9HP	Douglas Acheson	Sand and Gravel
Barrick Hill Quarries Limited	96 Largylea Road Dungannon Co. Tyrone BT70 2NX		Basalt
Bell Stanley and Sons	The Sand Pit 28 Balnagilly Road Cookstown BT80 9SX		Sand and Gravel
Blackhill Aggregates Limited	4 Doon's Road Cookstown	Doons	Sand and Gravel
Blackhill Aggregates Limited	49 Blackrock Road DunamoreCookstown		
Northstone Products	Toomebridge Sand Depot 30 Creagh Road Toomebridge BT41 3SE	Toomebridge Sand Depot	Sand and Gravel
Northstone Products	Ballynahaye Pit Ballynahaye Road BallygawleyDungannon BT70 2HN	Ballynahaye	Sand and Gravel
Core Aggregates	15 Crancussy Road EvishacrancussyCookstown		Sand and Gravel
Crawford George & Son Limited	Eskrahoole Quarry Dromore Middle Clougher BT76 0UF	Eskrahoole Quarry	Sand and Gravel
Creagh Concrete Products Ltd	Braghdysart Quarry 28 Disert Road Draperstown BT45 7JN	Brakagh Sand Pit	
Creagh Concrete Products Ltd	Magheraglass Quarry Magheraglass Road Cookstown	Magheraglass	Sand and Gravel
Elliott Bros.	22 Wood Road TobermoreMagherafelt	calmore No1	Sand and Gravel

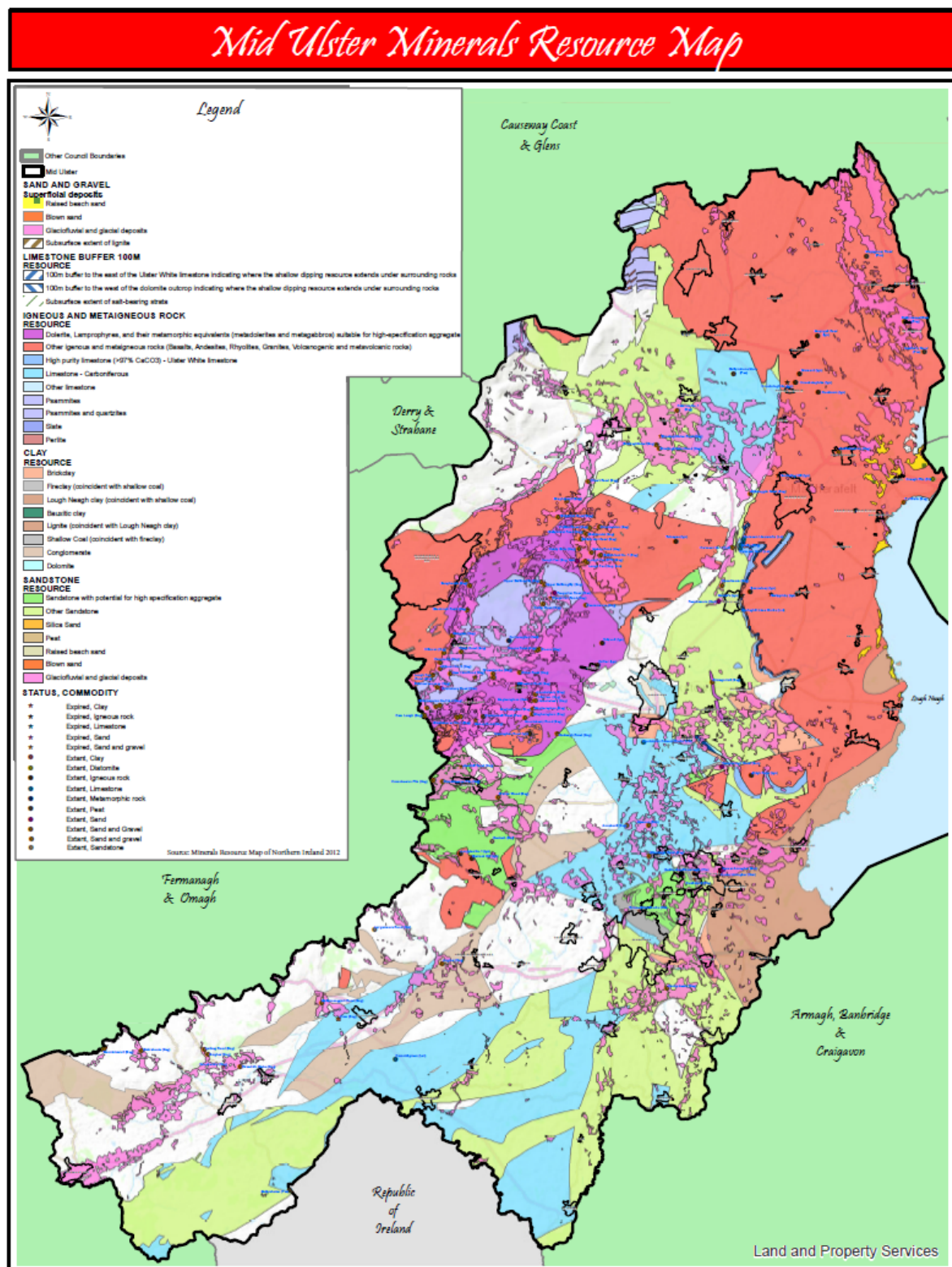
F. P McCann Limited	Knockloughrim Quarry 3 Drumard Road Magherafelt BT45 8QA	Knockloughrim Quarry	Basalt
Geotech Construction Limited	33 Shanmaghera Road Pomeroy Dungannon BT70 2TT		Sandstone
Girvan Sand and Gravel	42 Mabouy Road Pomeroy Co. Tyrone		
Gourley J. and Son	52 Tulnagee Road Moneymore Co. Derry		
Henry Brothers (Magherafelt) Ltd	129 Moneymore Road Magherafelt BT45 6HJ	office address	
Henry Brothers (Magherafelt) Ltd	163 Loughfea Road BallybriestCookstown	lough Fea Pit	Sand and Gravel
Heron Bros Ltd	Cullion Road Lough FeaDraperstown		
Heron Bros Ltd	Ballybriest Road Lough FeaCookstown	Ballypriest No 3	Sand and Gravel
Irwin W. D. and Sons Ltd	55 Gortgonis Road Coalisland Co. Tyrone BT71 4QG		sand and gravel
JDC Joinery and Building Works	260 Drum Road Cookstown Co. Tyrone BT80 9JJ		Sand and Gravel
	Corvanaghan Quarry 29 Corvanaghan Road Cookstown BT80 9TN	Corvanaghan Quarry	basalt
Keenan Patrick	Rocktown Quarry 35 Rocktown Road Magherafelt BT45 8QF	Rocktown	Basalt
Keenan Patrick	Loughdoo Road CookstownCo.Tyrone		
Loughdoo Aggregates	West of 3 Brackaghislea Road Draperstown		
Mallaghan Convenience DIY	204 Camlough Road Pomeroy Co. Tyrone		
McAleer Michael	231 Orritor Road Cookstown BT80 9NB	Orritor	basalt
Milburn Concrete	Hutchinson's site Creagh Road Toomebridge Co. Antrim BT41 3SD	Hutchinsons Site	sand and gravel
Northstone (NI) Ltd	Greggs Pit 34 Ballybriest Road Cookstown BT80 9TY	Greggs Pit	
Northstone (N.I.) Ltd	CarmeanLimeworks 18 Carmean Road Moneymore BT45 7UT	Carmean Quarry	limestone
Northstone (NI) Ltd	Doon Kinawley Co. Fermanagh	Doon Quarry	Limestone
Quinn Concrete Ltd	DoonsCookstown BT80 9NH		
R. J. Donaghy and Sons	Fergarran Road Cookstown	Feegarron Pit	sand and gravel
R. J. Donaghy and Sons	Drumshambo Glebe Cookstown BT80 9JJ		
Reid Bros	20a Spawell road Dunmore Cookstown BT80 9TT	Lough Fea	sand and gravel
Tobermore Concrete Products Ltd	Airfield Road Toomebridge Co. Antrim		sand and gravel
Walls Patrick and John	Sandholes Rd, Cookstown		
Lafarge Cement	Fegarron Road, Cookstown		Basalt
Cookstown Quarry			

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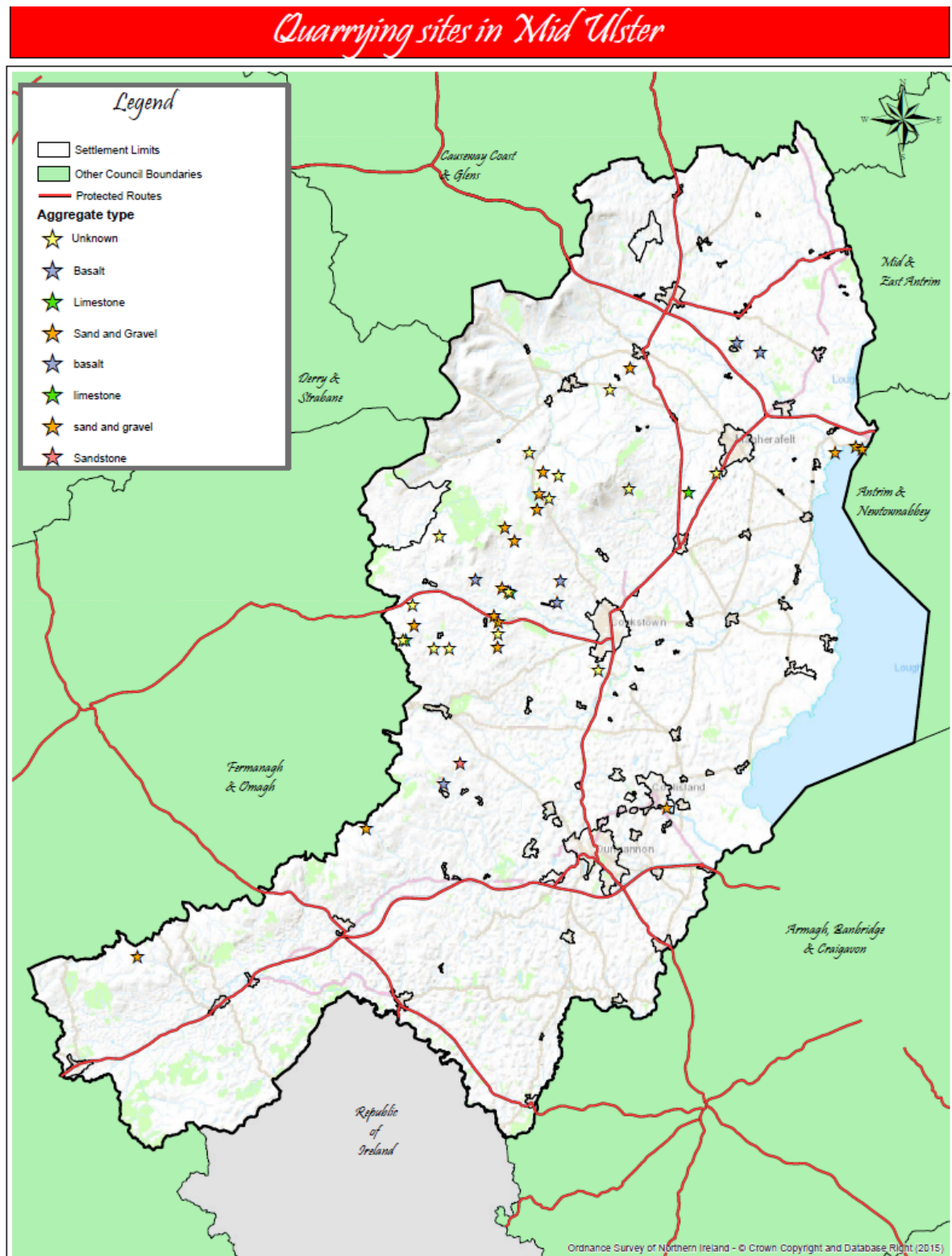
APPENDIX B – MINERAL INFORMATION FROM QPANI

<u>Council</u>	<u>Quarry Value</u>	<u>Tonnage extracted pro rata to 10 year average of 24MT per annum</u>	<u>Employee Numbers</u>	<u>Value of manufactured concrete and Asphalt Products</u>
Antrim and Newtownabbey	£458,751.00	182,044	340	
Armagh Banbridge and Craigavon	£14,528,241.00	3,166,972	250	
Belfast	No return		86	
Causeway coast and Glens	£6,446,303.00	1,797,449	300	
Derry and Strabane	£1,581,663.00	564,970	212	
Down and Ards	£10,484,988.00	4,190,897	106	
Fermanagh and Omagh	£11,860,195.00	3,107,820	737	
Lisburn and Castlereagh	£8,465,129.00	2,932,138	340	
Mid and East Antrim	£13,697,997.00	3,246,192	396	
Mid Ulster	£10,216,154.00	3,209,279	1257	
Newry and Mourne	£5,938,726.00	1,594,502	252	
Total	£83,678,147.00	23,992,263	4276	

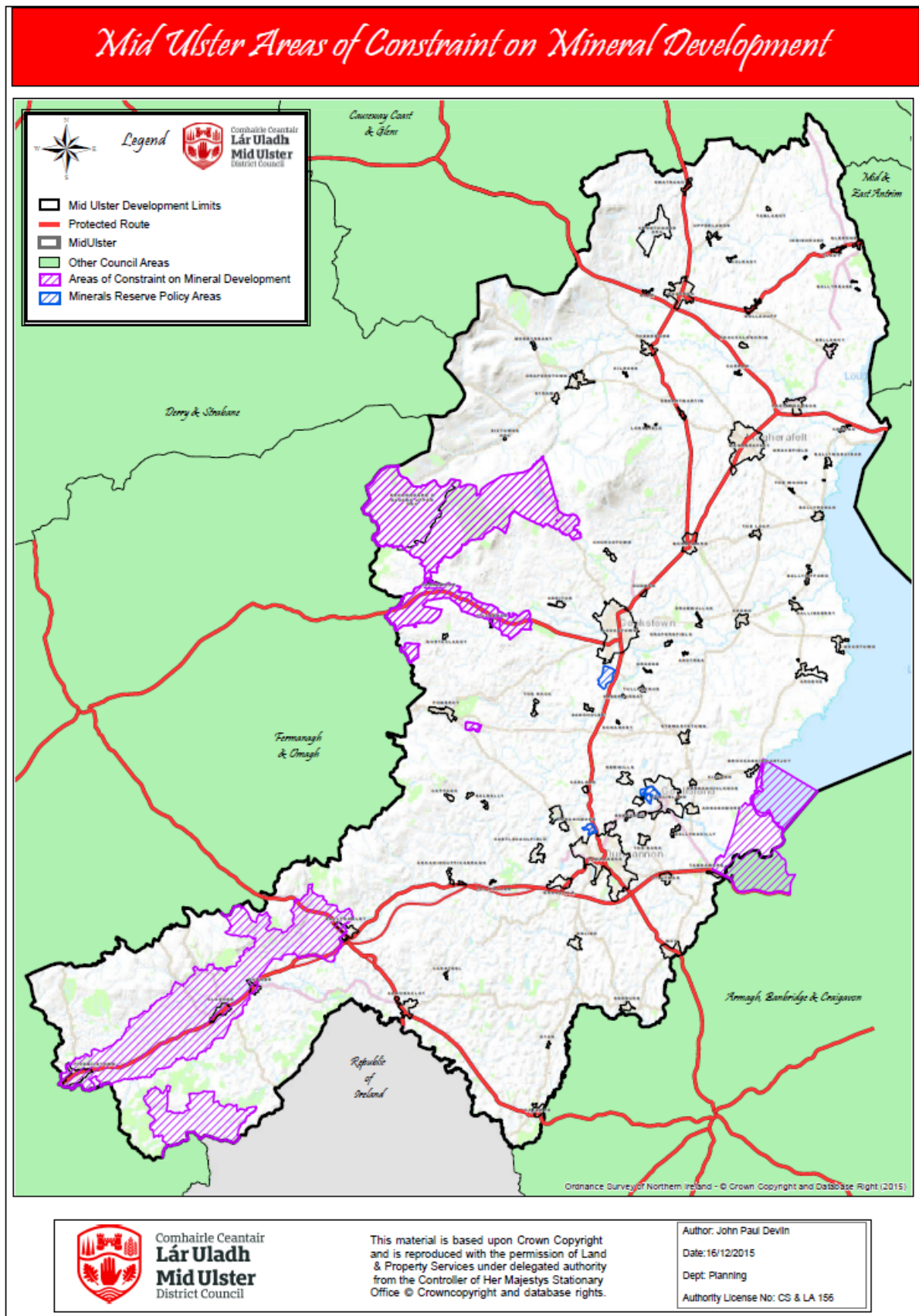
APPENDIX C



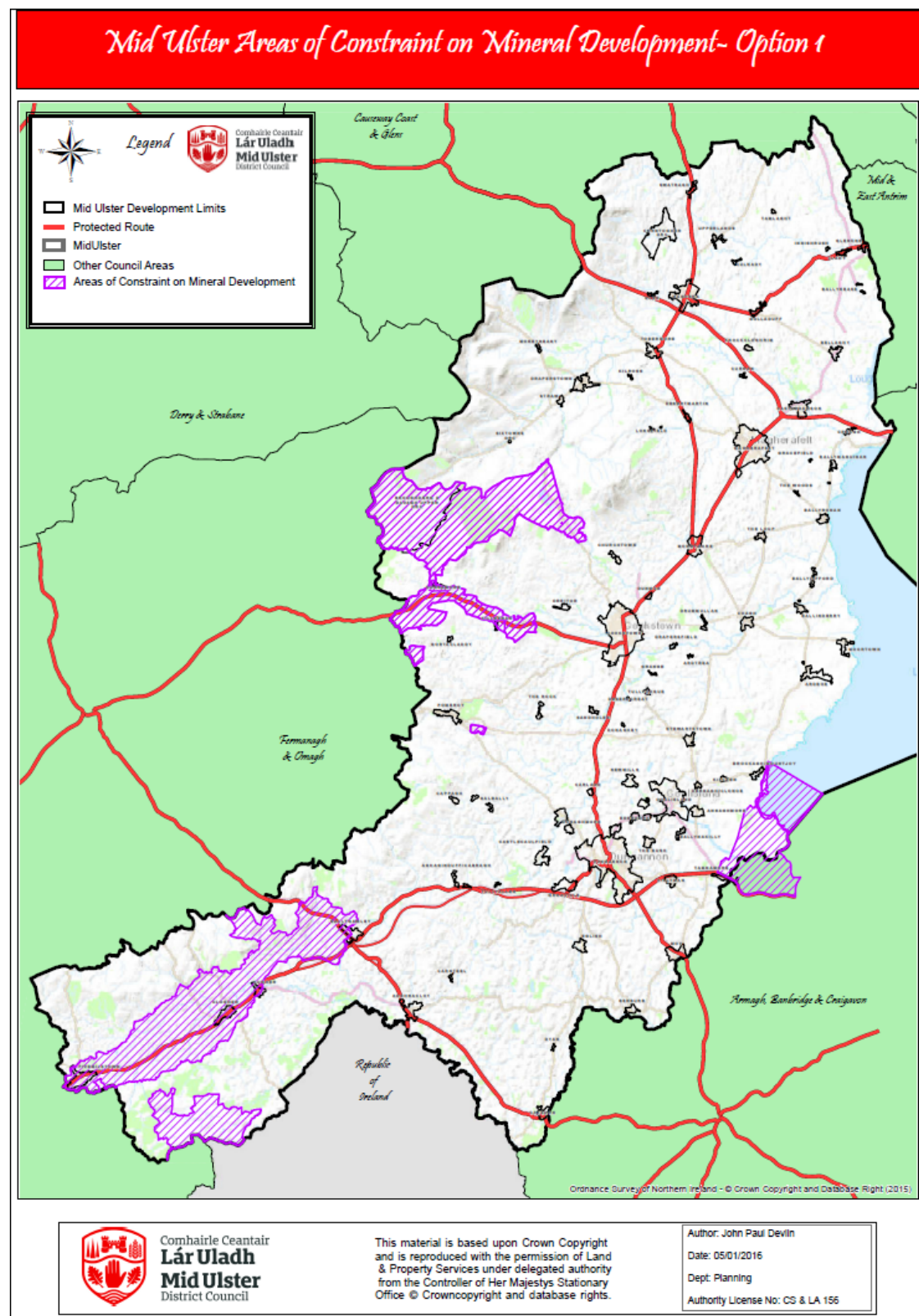
APPENDIX D



APPENDIX E

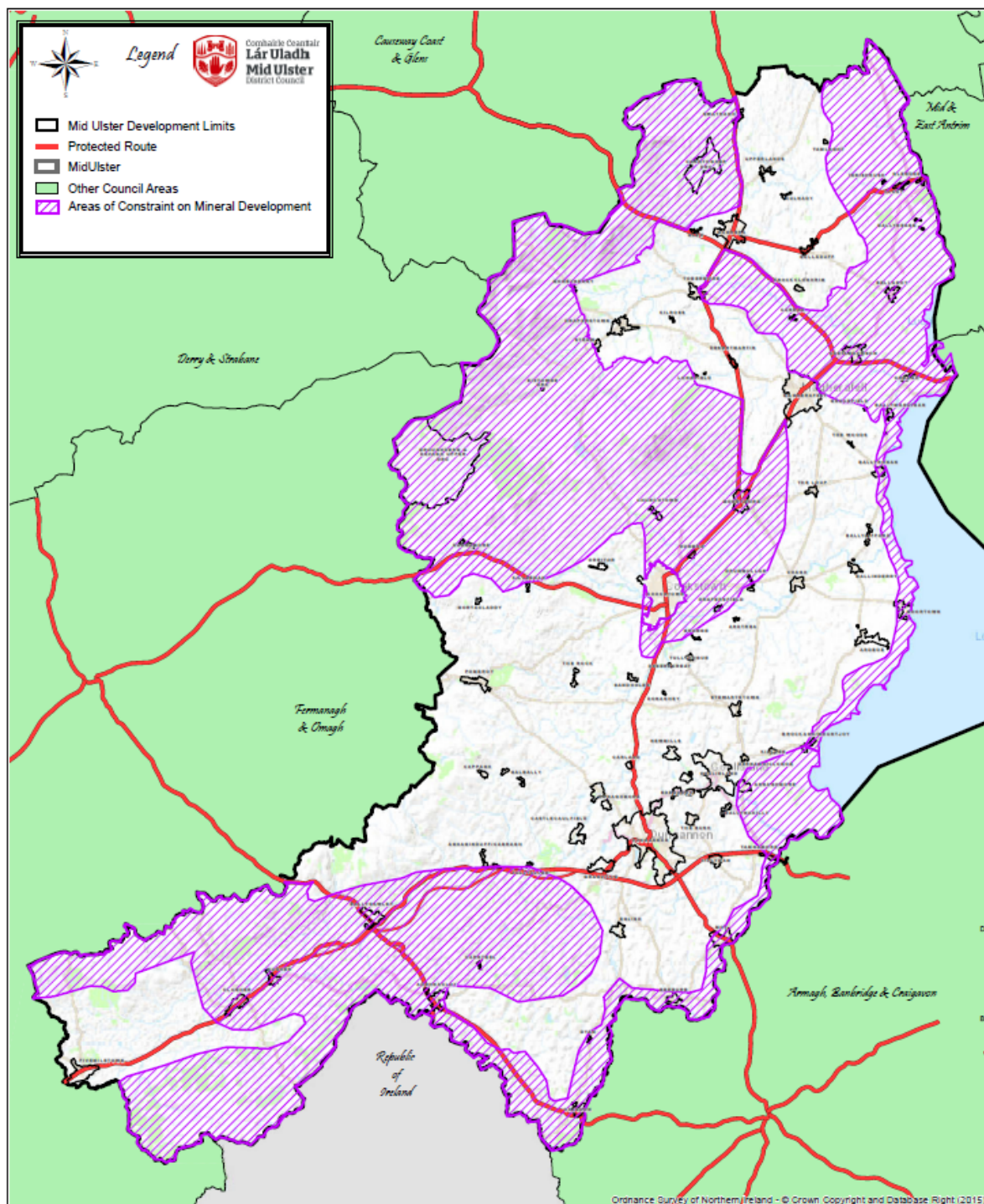


APPENDIX F



APPENDIX G

Mid Ulster Areas of Constraint on Mineral Development- Option 2



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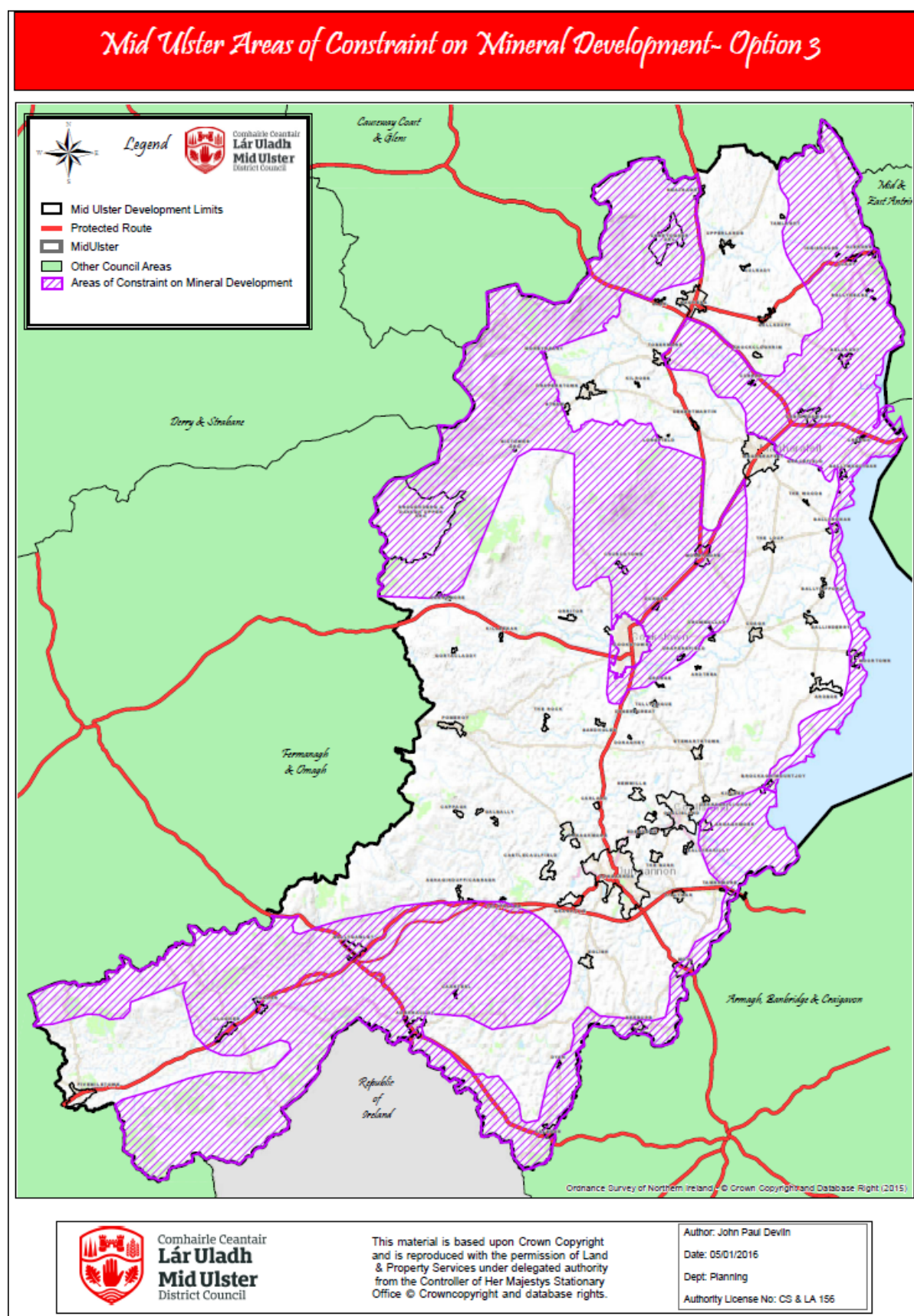
Author: John Paul Devlin

Date: 05/01/2016

Dept: Planning

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APPENDIX H



APPENDIX A - LIST OF ALL OPERATIONAL QUARRY COMPANIES IN MID ULSTER (SUPPLIED BY QPANI)

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Michael McAleer	204 Camlough Road		Pomeroy
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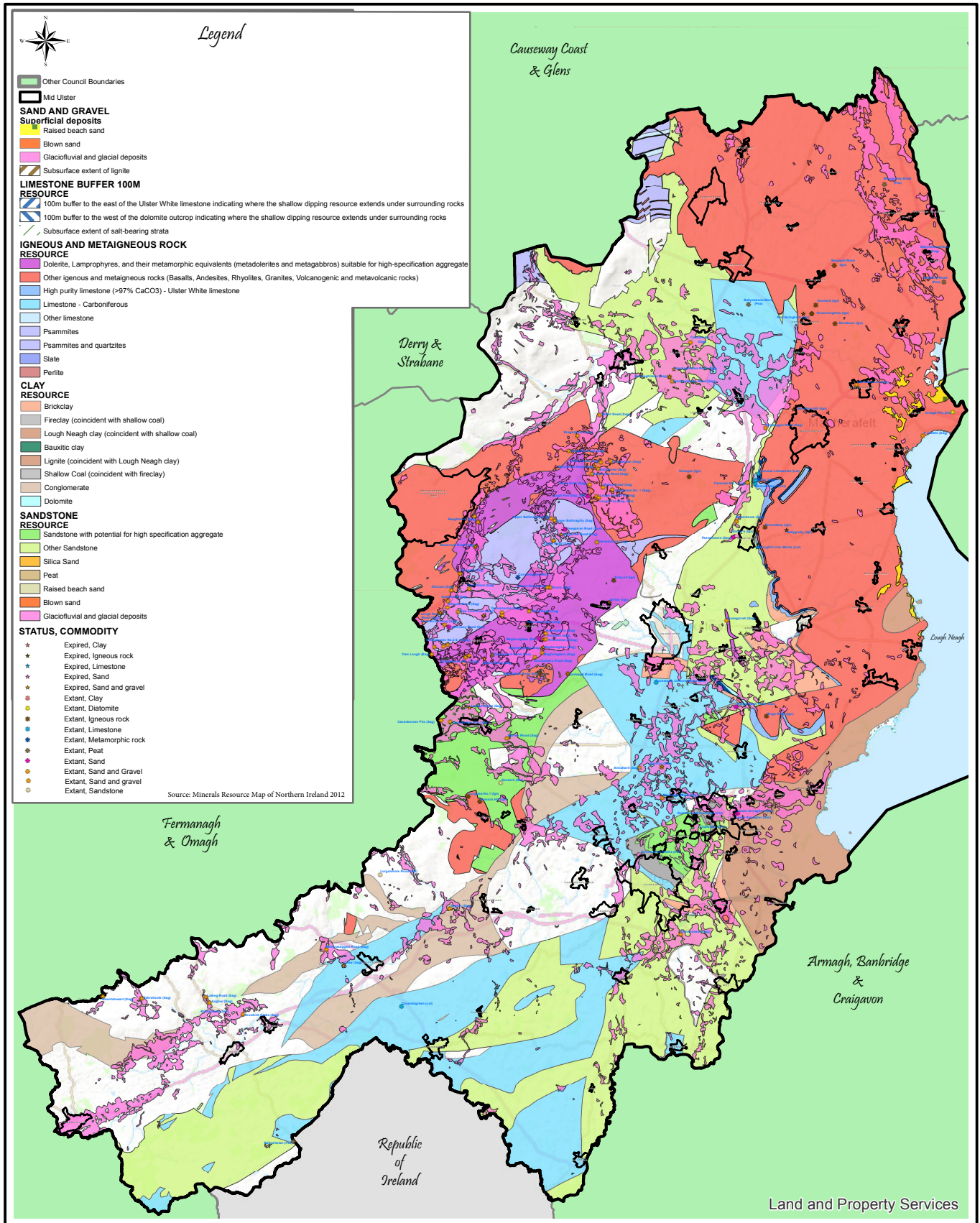
P Keenan & Sons	Head Office, Rocktown Quarry	35 Rocktown Road	Knockloughrim
R J Donaghy & Sons	71b Lissan Road		Cookstown
R.Hogg and Sons Ltd.	60 Tobermore Road		Magherafelt
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Newry and Mourne	£5,938,726.00	1,594,502	252	
Total	£83,678,147.00	23,992,263	4276	

The detail in this document is based on the last recorded mineral statement collected by DETI - 2011. It has then been pro rata up based on a ten year average of the DETINI Mineral Statement figures in order to present a more accurate assessment of production

Mid Ulster Minerals Resource Map



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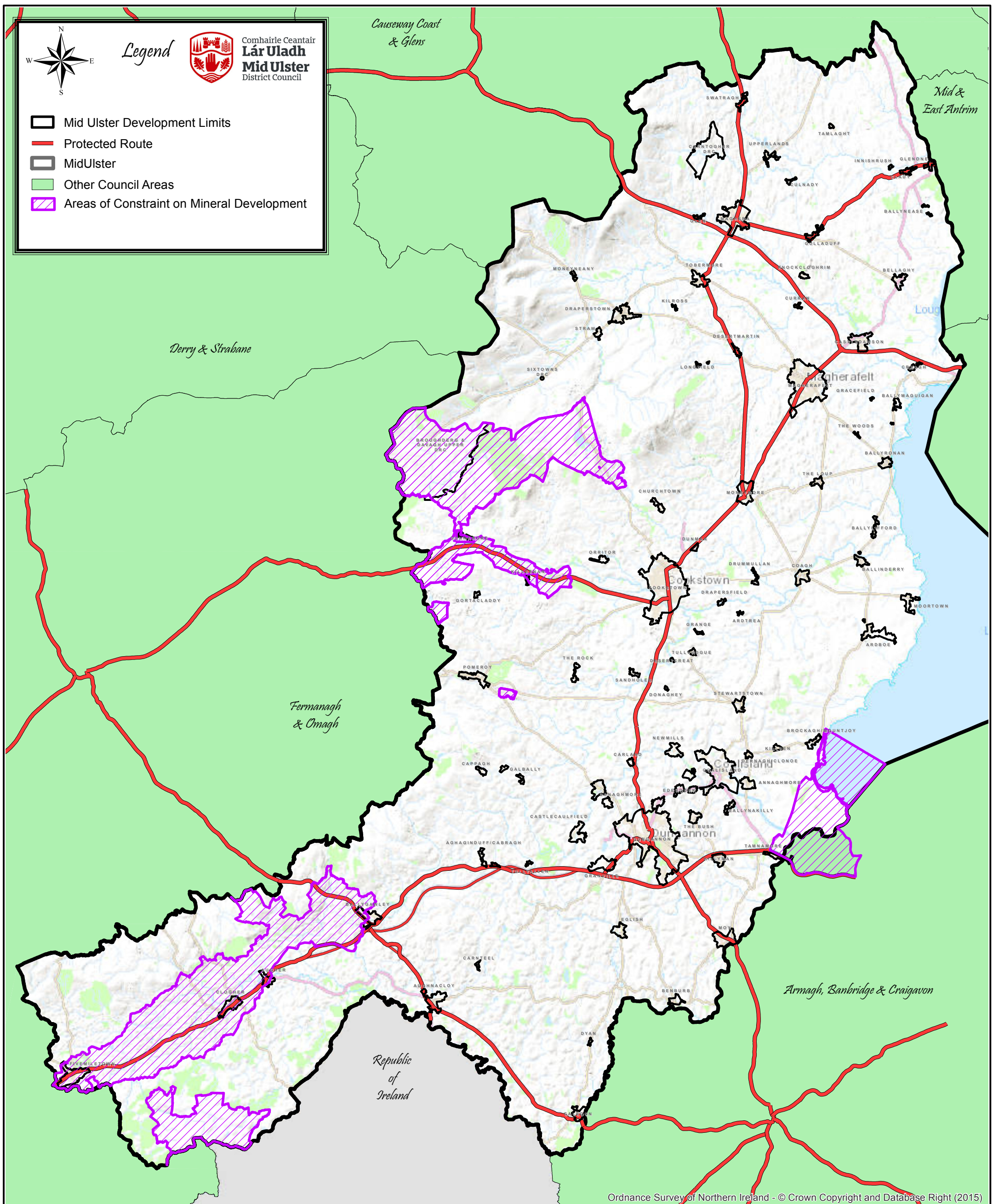
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Mid Ulster Areas of Constraint on Mineral Development- Option 1



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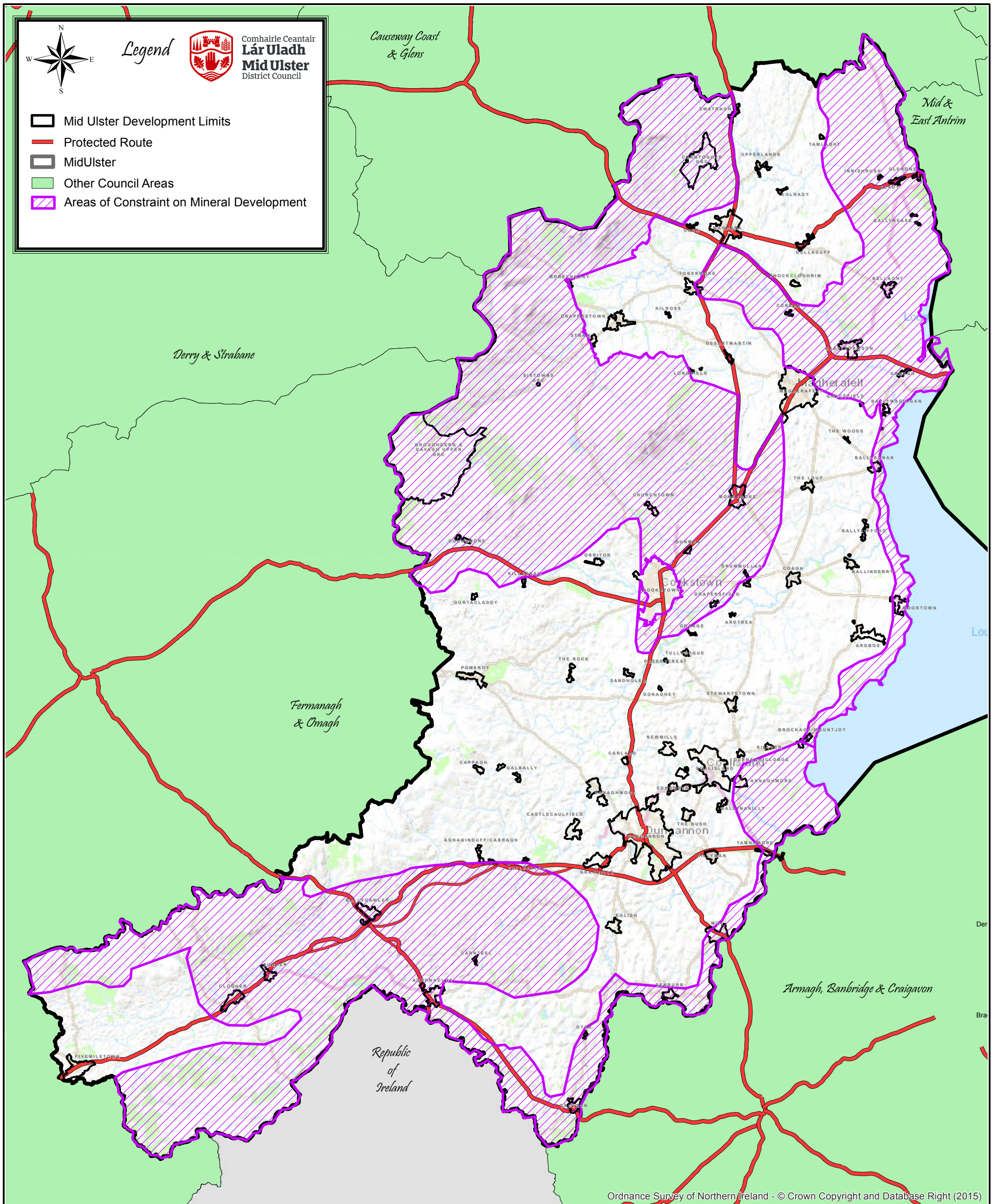
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Mid Ulster Areas of Constraint on Mineral Development- Option 2



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Mid Ulster Areas of Constraint on Mineral Development- Option 3

