



Topic Paper: Minerals

Local Development Plan 2020-2035



Belfast
City Council

Executive Summary

Context

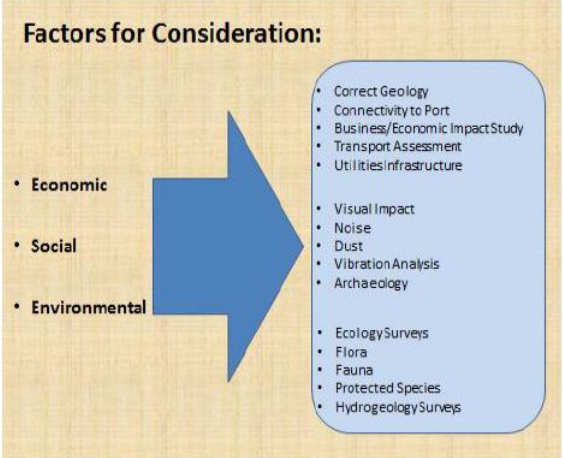


Mineral resources are recognised as an important national asset. Every one of us is dependent on the earth's mineral resources. Minerals extracted from the earth underpin every aspect of our daily life including the food we eat, the home we live in, the power we use, where we work and how we travel and communicate with others. Their extractions and use makes an essential contribution to the economy and adequate supplies are necessary for the development of a modern economy and are required for manufacturing, construction, power generation, transportation and agriculture. Renewable energy sources, recycled materials and industrial by-products can meet part of these requirement but new mineral sources will continue to be required.

The need for the LDP is to ensure that the location of mineral development and their operation is a controlled provision and that there is a balance between the need for mineral development and the potential impact on the environment. The economic 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.

Minerals development and associated industries in Belfast make a significant contribution to the local economy. There is an adequate supply of raw materials to provide for challenges of creating and maintaining our built environment for a growing population but to offer sustainable solutions to cope with the effects of climate change (flood relief) and future energy requirements. Continued mineral development, which is sustainable and respects the environment and the amenity of residents, is an essential part of the economic outlook for Northern Ireland. It is recognised that there is a need to ensure that supplies of raw materials are available at a rate to react to any economic growth and provide for a growing population.

The LDP will need to facilitate sustainable development through balancing the need for specific minerals development against the need to safeguard the environment.

Evidence base	Social, Economic & Environmental Factors
<p>Regional Development Strategy (RDS) 2035 – RG 11 Conserve, protect and enhance</p> <p>Strategic Planning Policy Statement Sustainable approach to minerals development</p> <p>Planning Strategy for Rural Northern Ireland (PSRNI) Control of mineral developments and sustainability</p> <p>Planning Policy Statement 2 Natural Heritage unacceptable adverse impacts</p> <p>PPS 6 Planning , Archaeology and the Built Heritage respect environmental policies</p> <p>Quarry Products Association Northern Ireland information</p> <p>DOE Review of Old Mineral Permissions (ROMPS) 1% of NI planning permissions</p> <p>British Geological Survey Annual Mineral Statements</p> <p>SOCIO-ECONOMIC PROFILE</p> <ul style="list-style-type: none"> • Belfast Council area has no active quarries (Black Mountain Quarry is inert) • 12 no Belfast Related Industries • Dependent on the operational quarries from the surrounding six Counties especially those based in Counties Antrim (25%) and Down (24%) which produce 49% of all minerals for Northern Ireland. • 160 quarries and sand pits in NI produce 24 Mt of aggregates and supplies materials worth £600M , • 1.75% of NI GDP • Employing directly and indirectly 5,600 people in NI • Building of 12,,000 new homes, £160 M hospital programme, • Maintenance of roads and rail network • upgrading of airport infrastructure • <p>Needs</p> <ul style="list-style-type: none"> • Every year 14 tonnes of aggregates are needed per head of the population in NI • A family indirectly demands 3 lorry loads of aggregates each year • A new house requires 50t of aggregates. 	<p>Factors for Consideration:</p>  <p>The diagram illustrates the flow from broad categories to specific factors. On the left, three categories are listed: Economic, Social, and Environmental. A large blue arrow points from these categories to a rounded rectangular box on the right. This box contains a comprehensive list of factors for consideration, including:</p> <ul style="list-style-type: none"> • Correct Geology • Connectivity to Port • Business/Economic Impact Study • Transport Assessment • Utilities Infrastructure • Visual Impact • Noise • Dust • Vibration Analysis • Archaeology • Ecology Surveys • Flora • Fauna • Protected Species • Hydrogeology Surveys
	<p>Role of the LDP</p> <p>How can the LDP ensure there are adequate mineral resources to meet future demands?</p> <p>How can the LDP identify areas which, because of their intrinsic amenity value, scientific value or archaeological or historic interest be protected from minerals development?</p> <p>How can the LDP ensure that areas are protected if necessary from surface development in order to safeguard future mineral development potential?</p> <p>How can the LDP secure the sustainable and safe restoration of mineral sites in a timely manner including appropriate re-use?</p> <p>How can the LDP ensure safeguarding areas coincide with neighbouring authorities?</p> <p>Opportunities /Key Areas</p> <ul style="list-style-type: none"> • Dependence/ future growth of Belfast Harbour for exports to UK and Europe • Future prospective terrain under-explored and unlicensed. • Development of new and sustainable materials and products.

Contents

1.0	Introduction	5
	Member Workshops	5
	Minerals	6
2.0	Policy Context	7
	Regional Policy	7
	Local Policy Context.....	10
3.0	Minerals Profile	14
	The Need for Minerals.....	14
	Economic Role	15
	Minerals in Belfast.....	20
4.0	Issues and Approaches	25
	Summary of Issues.....	25
	Approaches.....	26
	Appendix A: A Planning Strategy for Rural Northern Ireland	28
	Appendix B: Legislative Background	29
	Appendix C: Maps showing the following Active Quarries based inNorthern Ireland and UK and Geology Resources:-	32

1.0 Introduction

- 1.1 This is one of a series of 17 topic papers which have been put together to inform the Sustainability Appraisal Scoping Report for the Belfast Local Development Plan (LDP).
- 1.2 Each topic paper provides a summary of the evidence base required for the Sustainability Appraisal, Preferred Options Paper and Local Development Plan. They establish a baseline position and identify the key issues that need to be addressed.
- 1.3 By combining the evidence gathering stages for both the Sustainability Appraisal and Local Development Plan, we aim to streamline the documentation produced and avoid duplication. It will also help to ensure that sustainable development is embedded in the planning process and that sustainability appraisal is one of the main drivers informing the preparation of the Local Development Plan.
- 1.4 Each topic paper can be read separately but, inevitably, there are important related matters in other topic papers and background evidence.
- 1.5 This topic paper provides an overview of matters relating to Minerals and sets out the policy context, socio-economic profile, needs, and environmental considerations.
- 1.6 An understanding of the range, provision and location of public utilities can enable the Council to consider the requirement for new development and constraints on development. It is necessary for the Council to establish working relationships with all relevant sectors and utilities companies, and to coordinate planning of utilities and development sites.

Member Workshops

- 1.7 The series of 17 Topic Papers were drafted in the early part of 2016 to provide elected members with baseline information to inform the preparation of the Local Development Plan. As such the information presented within this topic paper is intended to:
- Build the capacity of the members to make informed planning decisions, particularly within the plan making context;
 - Provide baseline information which will inform Development Plan Policy making at a local level;
 - Consider the Settlement Hierarchy within the new Belfast Local Government District;
 - Assess the land use needs of a growing population within the Belfast City Council area and to consider the adequacy of the existing growth strategy; and
 - To link with important ongoing work in relation to the development of a Community Plan (the Belfast Agenda) and other strategic work being undertaken by the Council.

- 1.8 These papers were presented to members for discussion at a series of informal workshops with Planning Committee Members throughout the Spring 2016, with key issues and opportunities for the City identified for consideration.
- 1.9 The original Topic paper entitled Minerals was presented at a workshop on 19 May 2016. It has since been updated to ensure the statistics referenced are up to date for publication alongside the Preferred Options Paper

Minerals

- 1.10 This paper will emphasise the need for the LDP to ensure that the location of mineral development and their operation is a controlled provision and that there is a balance between the need for mineral development and the potential impact on the environment. The economic 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.

2.0 Policy Context

Regional Policy

2.1 The Regional Development Strategy 2035 (RDS) provides policy for minerals which is set out in Policy RG 11: Conserve, protect and, where possible, enhance our built and natural environment. It states that Northern Ireland has a remarkably diverse range of rocks and geomorphological features. While selected sites require protection for their scientific, educational and research value, other topographical and geological feature, if sensibly managed, can play active role in economic development.

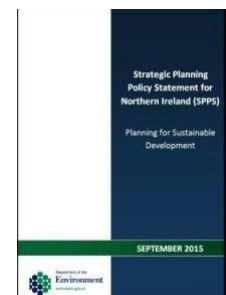


an

2.2 Policy RG 11 also provides for policy on the following to Protect designated areas of countryside from inappropriate development (either directly or indirectly) and continue to assess areas for designation. It states that designating special areas for protection is an effective way of ensuring our wildlife and natural landscapes retain their individual characteristics. Some areas are deemed of such importance that they are formally designated under various pieces of national and international legislation.

Strategic Planning Policy Statement (SPPS)

2.3 The final version of the SPPS was published by the Department of the Environment in September 2015. The provisions of the SPPS must be taken into account and are also material in the preparation of Local Development Plans and are also material to all decisions on individual planning applications and appeals.



2.4 The SPPS acknowledges that whilst mineral development can make a significant contribution to the local economy by providing materials for construction such as sand, gravel and crushed rock, there are also a number of challenges arising from this type of development. The planning system has a key role to play in facilitating a sustainable approach to minerals development, and ensuring the appropriate restoration of sites after working has ceased.

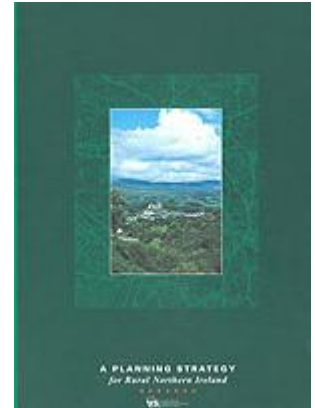
2.5 The SPPS also advises that the policy approach for minerals development, including peat extraction from bog lands, must be to balance the need for mineral resources against the need to protect and conserve the environment. Natural mineral resources should still be developed but not at the overriding cost of the environment. The policies contained in

Planning Policy Statement 2 (PPS 2) –Natural Heritage provide protection for a full range of sites of nature conservation importance, including peatlands.

- 2.6 The key policy 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.
- 2.7 SPPS states that the 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 states that the LDP should:
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;
Identify areas which should be protected from minerals development 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. However, where a designated area such as an Area of Outstanding Natural Beauty (AONB) covers expansive tracts of land, the LDP 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.
- 2.8 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 of the Environment (DOE) is satisfied there is sufficient and robust evidence on all environmental impacts.

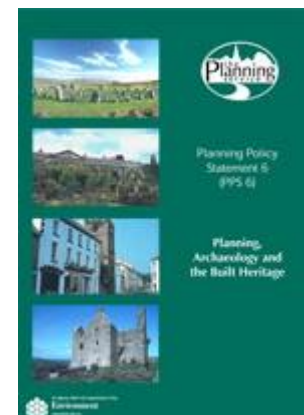
Planning Strategy for Rural Northern Ireland (PSRNI)

- 2.9 Regional planning policies for mineral developments are currently set out in a PSRNI. This contains a range of policies for the control of mineral developments, taking into account environmental protections, visual amenity, public safety and traffic considerations. The concept of sustainability is a notable element of the strategy however it does not recognise the difficulties this can pose in the context of the mineral development. It recommends that the rate of consumption of finite. See Annex 1 Minerals Policy PSRNI Policies MIN 1 to Min 8.



Other Planning Policy Statements¹

- 2.10 Natural Heritage (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. (See Topic Paper: Natural Heritage).
- 2.11 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.
- 2.12 Mineral developments also need to respect the environmental policies contained in PPS 6: Planning, Archaeology and the Built heritage. (See Topic Paper: Urban Environment (Urban Design and Built Heritage)).



1

http://www.planningni.gov.uk/index/policy/policy_publications/planning_statements/definitive_final_july_2013_pps_2_-_natural_heritage-3.pdf

Local Policy Context

Belfast Metropolitan Area Plan (BMAP) 2015

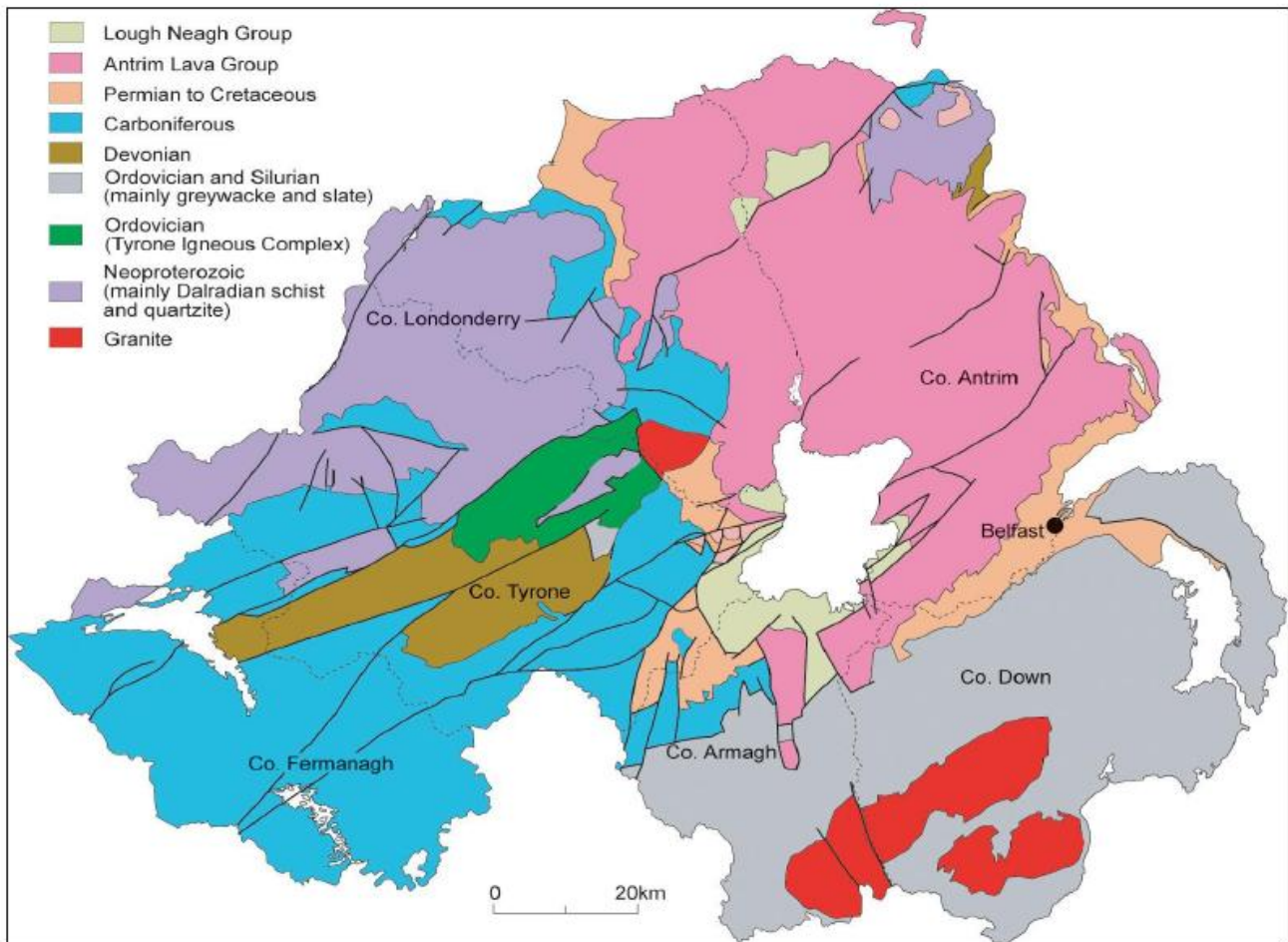
- 2.14 The Belfast Metropolitan Area plan (BMAP) 2015 was adopted in September 2014. Volume 1 of BMAP 2015 sets out the Planning Strategy and Framework seeks to sustain a living and working countryside while conserving and enhancing the protection of the metropolitan setting. It also recognises that the BMUA has a significant natural setting bounded by Belfast Lough and Hills, with the Lagan Valley Regional Park and the network of open spaces running through it.
- 2.15 Within the BMA, landscapes which are particularly sensitive because of their quality, or which need particular protection because of their location and the pressures for development on them, are afforded special protection by additional policies and designations in the Plan. These include: Rural Landscape Wedges (Policy COU 1); BMA Coastal Area (Designation COU 2 and Policies COU 3 & COU 4), Areas of High Scenic Value (Designation COU 5 & Policy COU 6); Belfast Hills Access Points (Policy COU 8); and Lagan Valley Regional Park (Designation COU 9 and Policies COU 10, COU 11 & COU 12). (See Natural Heritage Topic Paper).
- 2.16 Policy COU 6 in particular states that planning permission will not be granted for development proposals that would be likely to have a significant adverse effect on the quality, character and features of interest in Areas of High Scenic Value.
- 2.17 Policy COU 7 'Hydrocarbon Exploration' recognises that mineral exploration and development provides employment and necessary materials for construction in localised area where useful deposits occur. However, extraction and processing can have a significant impact on the countryside. The plan proposals recognise the need for a sustainable approach that takes account of the need to protect and conserve environmental resources.
- 2.18 In the event that hydrocarbon exploration identifies the possibility of commercially viable reserves of oil or gas, their exploration will be considered in the context of the short and long-term suitability of the site.
- 2.19 It is recognised that parts of the Plan Area have been despoiled by previously unregulated and unrestored mineral workings, particularly areas scattered throughout the Basalt

Escarpment of the South Antrim Hills lying to the north and west of the Belfast and Lisburn. Where there are proposals to develop further mineral deposits, the planning authority will take into consideration opportunities to achieve the restoration and rehabilitation of despoiled land. Where there are proposals to develop further mineral deposits

- 2.20 In May 2012 the Minerals Resource Map of Northern Ireland ² was launched by the Environment Minister and Minister of Enterprise Trade and Investment (now the Departments of Infrastructure and Economy 9th May 2015). The Mineral Resources Map provides a key resource of information to inform robust development plans and provide increased certainty for the minerals industry with regards to the location, extent and nature of the minerals resource in Northern Ireland. This will aid accurate and faster processing of planning applications.³ The map provides planners, industry and local communities with a tool to assist future decisions on a county to county basis in relation to the supply of minerals and in the protection of the environment. See **Figure 1** below showing the breakdown of geology of Northern Ireland's Bedrock over the six Counties.

² <http://www.northernireland.gov.uk/index/media-centre/news-departments/news-doe/news-doe-may-2012/doe-news-240512-new-minerals-resource.htm>

Figure 1: Basic Geology Map of Northern Ireland's Bedrock



2.21 The Belfast Council area is split between the following Resource Maps for Counties Antrim and Down and are produced by Geological Service Northern Ireland (GSNI). Information obtained from the Quarries are also based on County level through the annual Mineral Statement returns to DETI.

3.0 Minerals Profile

3.1 Mineral resources are recognised as an important national asset. Their extraction and use makes an essential contribution to the economy. Adequate supplies are necessary for the development of a modern economy and are required for manufacturing, construction, power generation, transportation and agriculture. Renewable energy sources, recycled materials and industrial by-products can meet part of these requirements but new mineral sources will continue to be required.

The Need for Minerals

3.2 Every one of us is dependent on the earth's mineral resources. Minerals extracted from the earth underpin every aspect of our daily life including the food we eat, the home we live in, the power we use, where we work and how we travel and communicate with others.



3.3 Each person uses every year an average of over ten tonnes of minerals as diverse as salt, sand, coal and iron ore. Even with an important contribution from recycling, minerals extracted from the earth still supply most of our daily needs. These include metals, construction materials such as sand and gravel that are essential for our infrastructure (roads, runways, buildings), and many other manufactured materials such as glass, ceramics and plastics.

3.4 All natural minerals must be found, mined or quarried and processed into useable forms to provide the materials and manufactured products on which our standard of living is based.



- 3.5 Mineral resources are essential for construction and development. To manage the inevitable development in the years ahead we need to know the extent and value of our resources. Such as construction materials, like limestone, sand and gravel, crushed rock, industrial minerals, oil and gas resources and metallic minerals. We may not always be aware of it, but minerals have an essential role in our everyday existence and they are vital for continued economic, social and technological development.

Economic Role

- 3.6 Minerals play a vital economic role in Northern Ireland. Each of these sectors mentioned above 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.

EXAMPLES



Skainos Centre building,

Belfast Sewers and Corporation St Drainage Projects



In a typical year, Northern Ireland's quarry network supports:

the building of 12,000 new homes
£160 million on school and university improvements
a £120 million hospital building programme
maintenance of our road and rail network
improvements to water services
the upgrading of our airports
supplies of special sands and aggregates for our gardens
the turnover of the Northern Ireland quarry industry is approximately
£400 million, 1.75 % of NI GDP

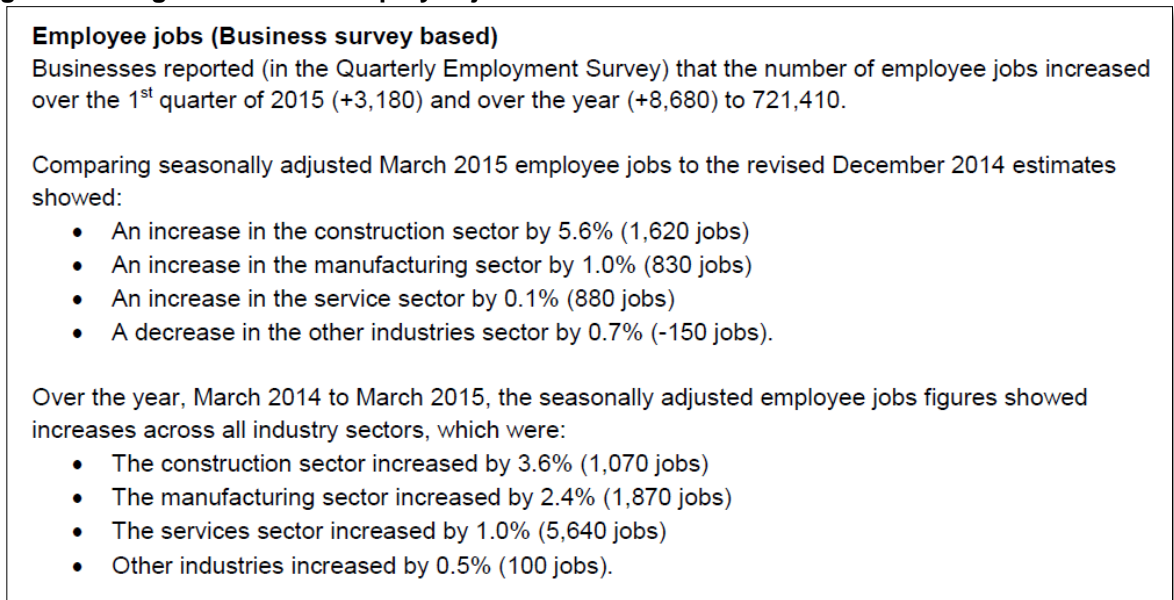
In addition:

Every year nearly 14 tonnes of aggregates are needed per head of the population in Northern Ireland
a typical family indirectly demands three lorry loads of aggregates each year
a new house requires some 50 tonnes of aggregates
the quarry products industry employs around 5,600 people in Northern Ireland

3.7 The Quarry Products Association Northern Ireland (QPANI) who represent over 95% of the quarry products industry have estimated that quarries in Northern Ireland produce aggregates to the value of around £84 million each year. The Geological Survey of Northern Ireland (GSNI) estimate that the total turnover from the Quarry and Quarry Products Sector in Northern Ireland is around £630 million, which equates to about 3% of the GDP 4.

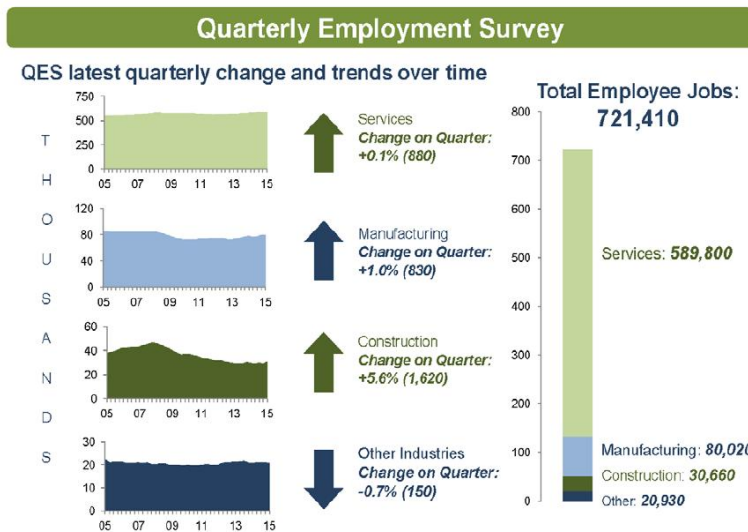
3.8 QPANI also estimate that the total number of people employed by the quarrying industry is 4,276. The Quarterly Employment Survey (QES) produced by NISRA in March of 2015 estimates the amount of people employed directly in quarrying is around 1,790 and the amount of people employed in the manufacture of mineral products is 4,450. 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. See Below Figure 4 and 5 below.

Figure 4: Figure 4- NISRA Employee jobs



3.9 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 need, thus providing valuable employment opportunities in these areas.

Figure 5: Figure 5- Quarterly Employment Survey (NISRA)



3.10 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: (QPANI) (2015)

- 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



Forrester Green

3.11 In other words, the construction industry in Northern Ireland, which provides massive employment and is responsible for around 10% of the country's GDP, 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.

- 3.12 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.
- 3.13 It is recognised that quarries, through their products, give us places to live, places to work, places to play and much more. But quarrying does have environmental implications and the need to balance the economic, environmental and social factors. See Diagram below showing factors for consideration:-

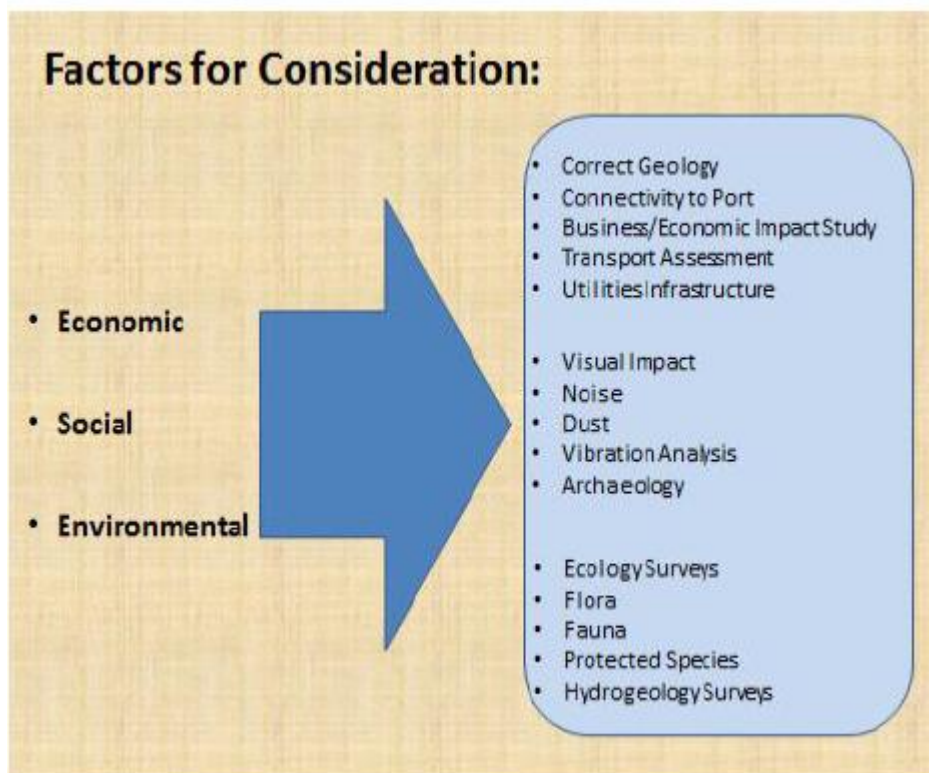


Figure 6: Figure 6-Factors for Consideration: Impacts of Quarries



Black Mountain Quarry

Minerals in Belfast

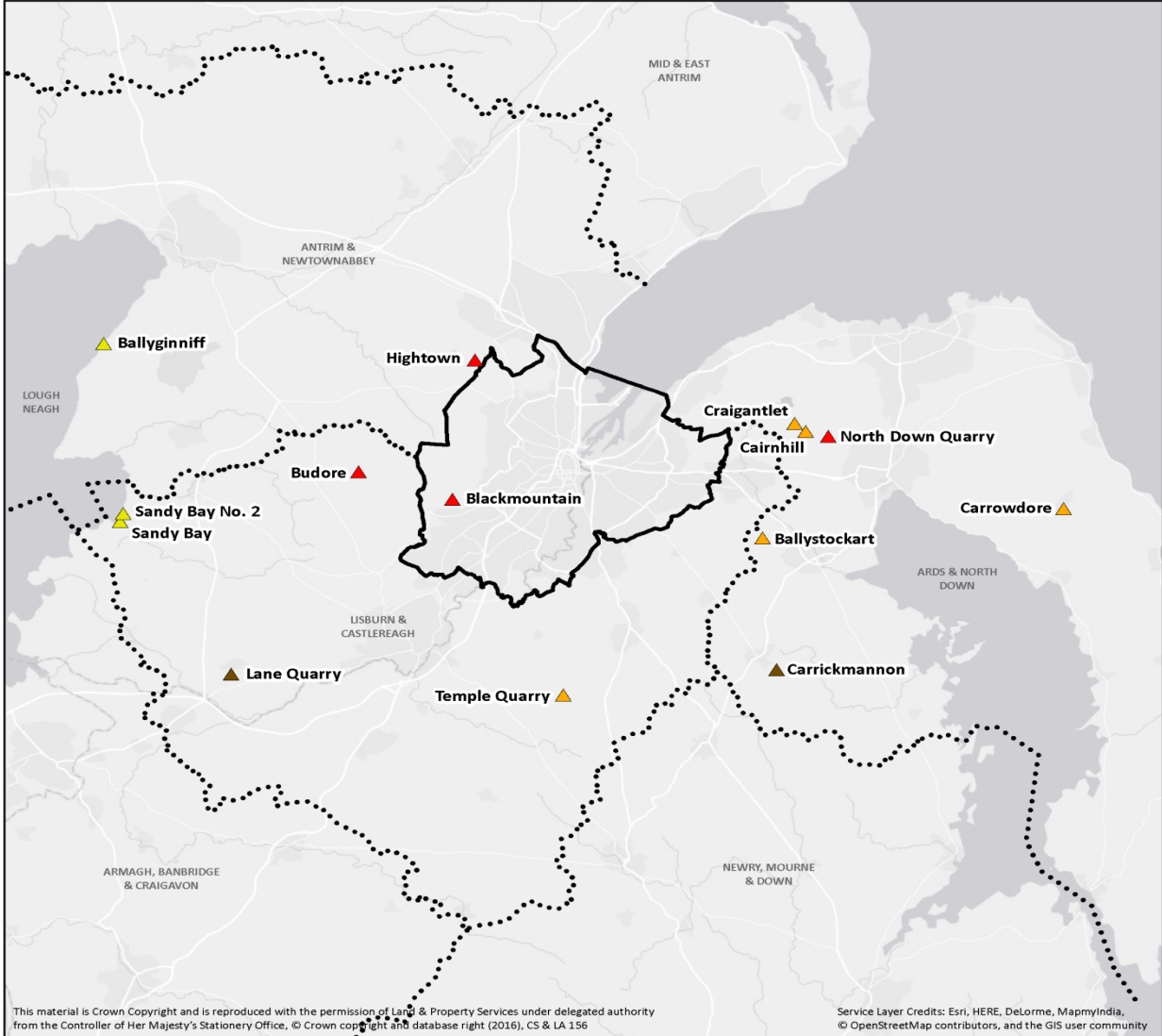
- 3.14 Since the 1960's there have been approximately 371 mineral permissions granted between the 1960's and the early 1990's, with Belfast having 2 of these which equates to approximately 1% and the surrounding areas of Castleragh, Lisburn and North Down 17 permissions totalling 5% of all the mineral permissions which are to be subjected to Review of Old Mineral Permissions (ROMPS). (See Annex 2 for further explanation of ROMPS).
- 3.15 In the Belfast Council area there are no active quarries (Black Mountain Quarry is inert) within the plan area as shown on the following Map No 1 and supporting information from British Geological Association Maps in Annex 3.
- 3.16 Belfast is dependent on the operational quarries from the surrounding six Counties especially those based in Counties Antrim (25%) and Down (24%) which produce 49% of all minerals for Northern Ireland. The majority of quarries according to QPANI are based in the Mid Ulster District with 31 quarrying companies and 41 quarry sites producing 3.2Mt of aggregates each year. See also associated Tables 3 and 4 showing average quantity produced per year per County and per Mineral. See Map 4 Production of hard rock, sand and gravel production based on local geology of NI.

Figure 7: Quarries within the Belfast Council Area and Surrounding Council Areas



Belfast City Council

MINERALS



This material is Crown Copyright and is reproduced with the permission of Land & Property Services under delegated authority from the Controller of Her Majesty's Stationery Office, © Crown copyright and database right (2016), CS & LA 156

Service Layer Credits: Esri, HERE, DeLorme, MapmyIndia, © OpenStreetMap contributors, and the GIS user community

Quarry Locations and Commodities

Quarry Commodity:

- ▲ Basalt
- ▲ Mudstone
- ▲ Sand and Gravel
- ▲ Sandstone

- ▭ Belfast City Council Area
- Council boundary

Source: Geological Survey of Northern Ireland, DETI

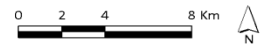
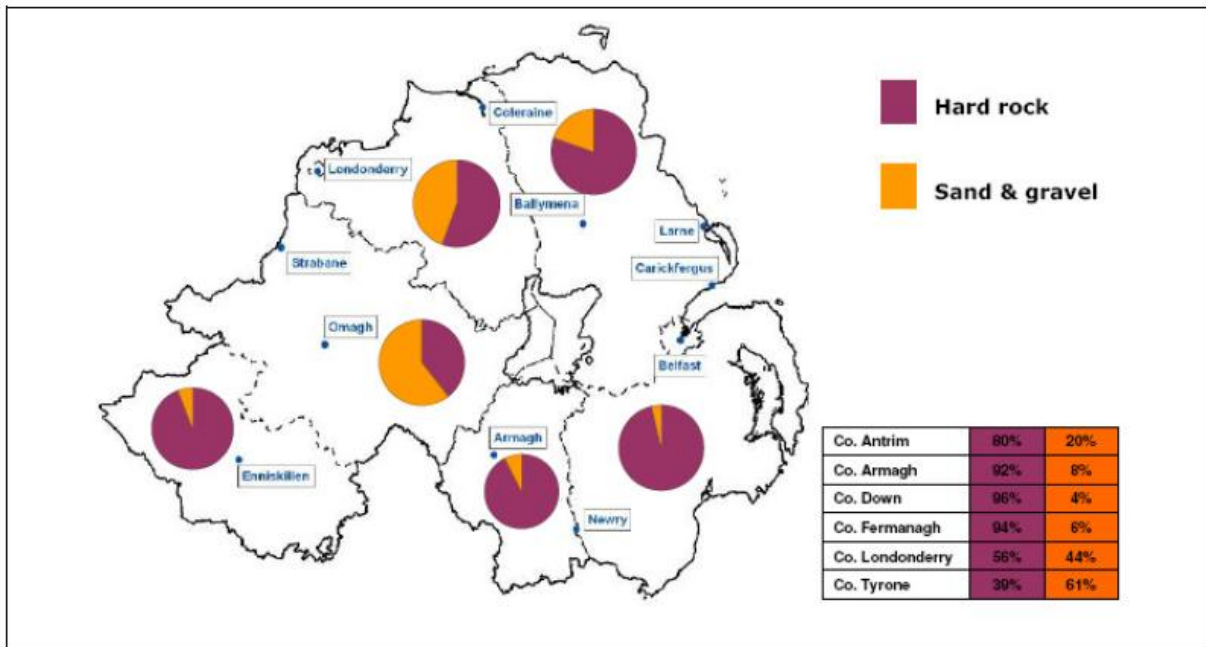


Figure 8: Average Quantity Produced Per Year Per County (GSNI/QPANI)

County	Average Quantity Produced Per Year	Average Selling Value Per Year
Co. Antrim	5,755,971	23,634,794
Co. Armagh	2,489,610	8,816,416
Co. Down	6,149,708	24,364,355
Co. Fermanagh	3,866,057	12,324,285
Co. Londonderry	3,092,140	11,468,011
Co. Tyrone	4,239,148	13,334,205

Per Mineral	Average Quantity Produced Per Year	Average Selling Value Per Year
Basalt	6,741,105	24,043,334
Sandstone	6,120,695	22,689,134
Limestone	5,174,620	16,824,827
Sand & Gravel	5,993,378	23,104,141
Other	1,562,836	7,280,629

Figure 9: Average Quantity Produced Per Year Per Mineral (GSNI/QPANI)



Mineral Statements

3.17 Each year, the Minerals Branch in Geological Survey of Northern Ireland on behalf of the DETI collects industry data and publishes an Annual Mineral Statement – mined under the Mines Act 1969 and Quarries (NI) Order 1983. (See Annex 2 Legislation). The last updated information from quarries and associated operations was produced in 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 fully reflective of the overall picture in Belfast or indeed in Northern Ireland.

3.18 While it is accepted that Belfast has no active quarry production the local economy is still dependent on the aggregate production and associated table highlights the related companies carrying operating quarry related activities. According to QPANI NI produces 20Mt of aggregates and supplies materials worth over £600M, employing directly and indirectly 4,000 people. See Table 3 showing the relative importance of mineral related activity to levels of employment in Belfast Council Area. (See also Economy Topic Paper)

Figure 10: Belfast Related Industries

Company	Locations	Products / Activity	No of Employees
Conexpo	Belfast Harbour	export of High PSV aggregates	16
Northstone Materials	Belfast Harbour, Dunmurry	Ready Mixed Concrete	10
Six West	Belfast	Mineral Planning Agents	6
McLorian Consulting	Belfast	Mineral Planning/ Environmental Agents	5
Whitemountain Quarries	Blackmountain	Asphalt Manufacture / Inert Waste landfill	5
Whitemountain Quarries	Belfast Harbour	export of High PSV aggregates	2
Tennant Bitumen	Belfast Harbour	Bitumen	10
Lagan Bitumen	Belfast Harbour	Bitumen	10
Atlantic Bitumen	Belfast Harbour	Bitumen	10
Lagan Cement Products	Belfast Harbour	Cement import and export	2
Lagan Cement Products	Blackmountain	Ready mixed Concrete	2
Colinwell Concrete	West Belfast	Precast Concrete	15
Lafarge	Belfast	Cement	7
Larsen	Belfast Harbour	Concrete Admixtures	90
Total			190

3.19 Many of these industries are dependent on Belfast Harbour for exporting to the UK and onwards to Europe. An example of this is Conexpo who exports products (1 Mt annually from their quarry in County Down) globally from the Port of Belfast terminal and via company distribution hubs in Bristol, London and the Netherlands. This highlights the need for a sustainable transport infrastructure and future collaborative working with adjoining councils in the support of this industry.



Conexpo Operation at Belfast Harbour Area

4.0 Issues and Approaches

Summary of Issues

4.1 It is clear that Belfast faces complex challenges and opportunities including:

- Need for up to date Mineral Statements
- Belfast is dependent on the operational quarries from the surrounding six Counties especially those based in Counties Antrim (25%) and Down (24%) which produce 49% of all minerals for NI. While it is accepted that Belfast has no active quarry production the local economy is still dependent on the aggregate production.
- Dependency on Belfast Harbour for export for the Industry;
- The potential of Northern Ireland has become apparent in recent years and large areas of prospective terrain remain under-explored and unlicensed;
- Geological models are being used to re-evaluate areas previously considered less prospective and pressure may arise to develop these;
- 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;
- Consider how the LDP should safeguard mineral resources which are of economic or conservation value.
- Seek to ensure that workable resources are not sterilised by other surface development which would prejudice future exploitation;
- Consider how the LDP should identify areas which, because of their intrinsic amenity value such as designated AONBs including area of scientific value or archaeological or historic interest should be protected from minerals development;
- Particular regard to the safety and amenity of the occupants of developments in close proximity to the mineral workings;
- Amenity of people living or working in proximity to the quarries and associated operations;
- Adverse impacts could result from noise, vibration and dust arising through excavation, processing or transporting of materials;
- Avoidance of visual intrusion unnecessary and unsightly stockpiling of plant machinery and infrastructure;
- Importance of preserving skylines;

- Ensuring sufficient restoration and rehabilitation measures;
- Transport infrastructure to support the industry;
- Energy Challenges for mineral operations and delivery of produce;
- Development of new and sustainable materials and products;
- Growing public concern over licensing of operations;
- Continuing Management and protection of the Natural environment and further improvement of biodiversity;

Approaches

- 4.2 This paper has shown that minerals development and associated industries in Belfast make 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 2035. 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 other Council Areas mean that mining and quarrying is a significant employer along with associated concrete production.
- 4.3 Not only is it important that there is an adequate supply of raw materials to provide for a challenges of creating and maintaining our built environment for a growing population but to offer sustainable solutions to cope with the effects of climate change (flood relief) and future energy requirements. Continued mineral development, which is sustainable and respects the environment and the amenity of residents, is an essential part of the economic outlook for Northern Ireland.
- 4.4 In line with the SPSS the LDP will need to facilitate sustainable development through balancing the need for specific minerals development against the need to safeguard the environment.
- 4.5 This information contained within this topic paper has been used to inform the next stage of the LDP process, the Preferred Options Paper.
- 4.6 This information contained within this topic paper has been used to inform the next stage of the LDP process, the Preferred Options Paper.

Table of Figures

Figure 1:	Basic Geology Map of Northern Irelands Bedrock	12
Figure 2:	County Antrim and Belfast - Resource Map (GSNI)	13
Figure 3:	County Down and Belfast – Resource Map (GSNI)	13
Figure 4:	Figure 4- NISRA Employee Jobs	17
Figure 5:	Figure 5- Quarterly Employment Survey (NISRA).....	18
Figure 6:	Figure 6-Factors for Consideration: Impacts of Quarries.....	19
Figure 7:	Quarries within the Belfast Council Area and Surrounding Council Areas.....	21
Figure 8:	Figure 8- Average Quantity Produced Per Year Per County (GSNI/QPANI)	22
Figure 9:	Average Quantity Produced Per Year Per Mineral (GSNI/QPANI).....	22
Figure 10:	Belfast Related Industries.....	23

Appendix A - A Planning Strategy for Rural Northern Ireland

PSRNI Policy

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 minerals extraction

Policy MIN 3 Areas of CONSTRAINT

To identify Areas of Constraint on Mineral Developments.

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.

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.

Appendix B 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** (“the 1969 Act”) meant that most minerals in the ground in Northern Ireland were vested to the Ministry of Commerce, now known as the Department of Economy as from 9th May 2016 (also formerly known as Department of Enterprise, Trade and Investment (DETI)). This enabled the Department to grant licenses for exploration and development of minerals. This licensing system is based on the provisions of the 1969 Act and on subsequent subordinate legislation. The provisions relating to prospecting for minerals are quite separate and distinct from those relating to the development of minerals. There is no automatic continuity between exploration and development work. 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 licence from DETI to be extracted:

Exceptions to 1969 Act

- Gold and silver resources which belong to the crown estate,
 - Mineral deposits (mainly salt) which were being worked at the time of the commencement of the 1969
 - Act were not vested in the Department
 - Common substances e.g. Sand, gravel, crushed rock, brick clays, agricultural soil.
 - Mines belonging to any religious or educational institution.
- 2.5** For landward exploration a licence is required, which grants exclusive rights to exploit for and develop oil and gas onshore within Great Britain. The rights granted by landward licences do

not include any rights of access, and the licensees must also obtain any consent under current legislation, including planning permissions. The Department of Enterprise, Trade and Investment for Business, grants licences to explore for and exploit all oil and gas resources.

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 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 DOE 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.
- 2.12** Approximately 371 mineral permissions were granted between the 1960's and the early 1990's , with Belfast having 2 of these which equates to approximately 1% and the surrounding areas of Castlereagh, Lisburn and North Down 17 permissions totalling 5%of all the mineral permissions which are to be subjected to ROMPS⁴.

Former LGD	Number of Old Permissions	% of northern Ireland as a Whole
Belfast	2	1
Castlereagh	1	0
Lisburn	14	4
North Down	2	1

Hard Rock/ Sand and Gravel

⁴ www.planningni.gov.uk/downloads/news-legislation-planreform-romp.pdf

Appendix C Maps from the UK Directory of Mines and Quarries and the British Geological Survey (2014) showing the following Active Quarries based in Northern Ireland and UK and Geology Resources:-

Map 1 Igneous and Metamorphic Rock Resources

Map 2 Limestone Resources

Map 3 Sandstone Resources

Map 4 Marine and Gravel Resources

Map 1 Igneous and Metamorphic Rock Resources

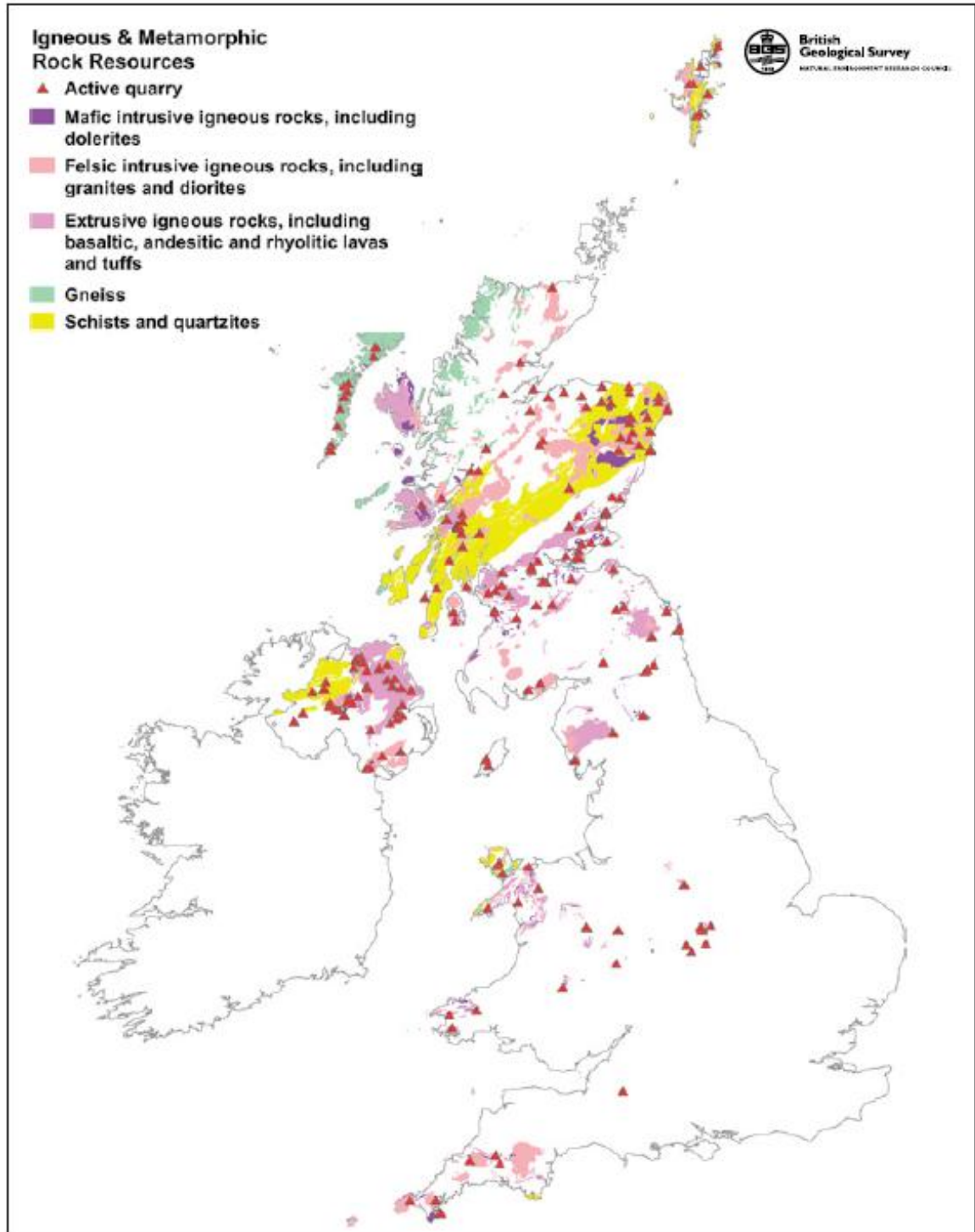


Figure 3 Igneous & Metamorphic Rock resources and workings in the UK in 2014.

Map 2 Limestone Resources

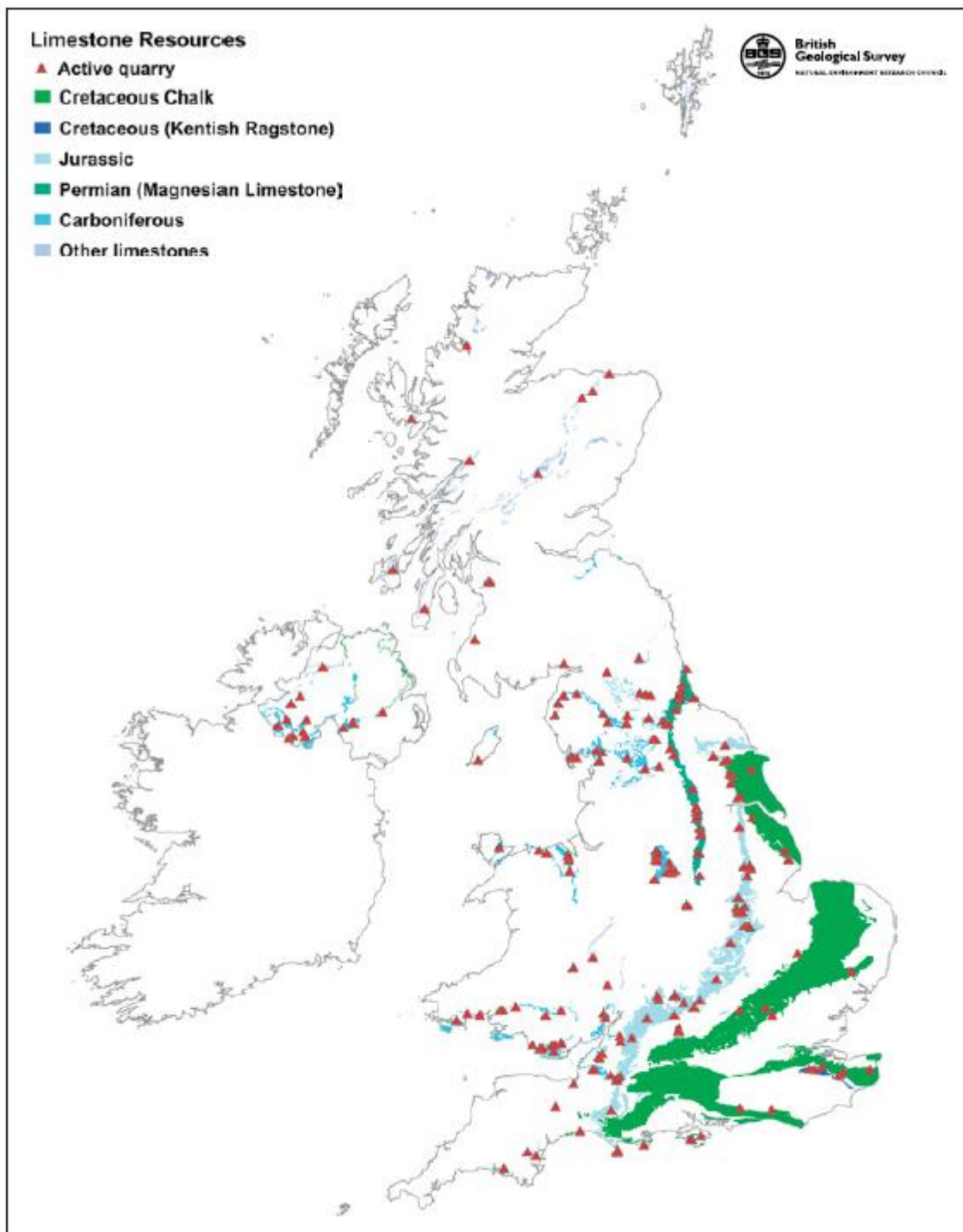


Figure 4 Limestone resources and workings in the UK in 2014.

Map 3 Sandstone Resources

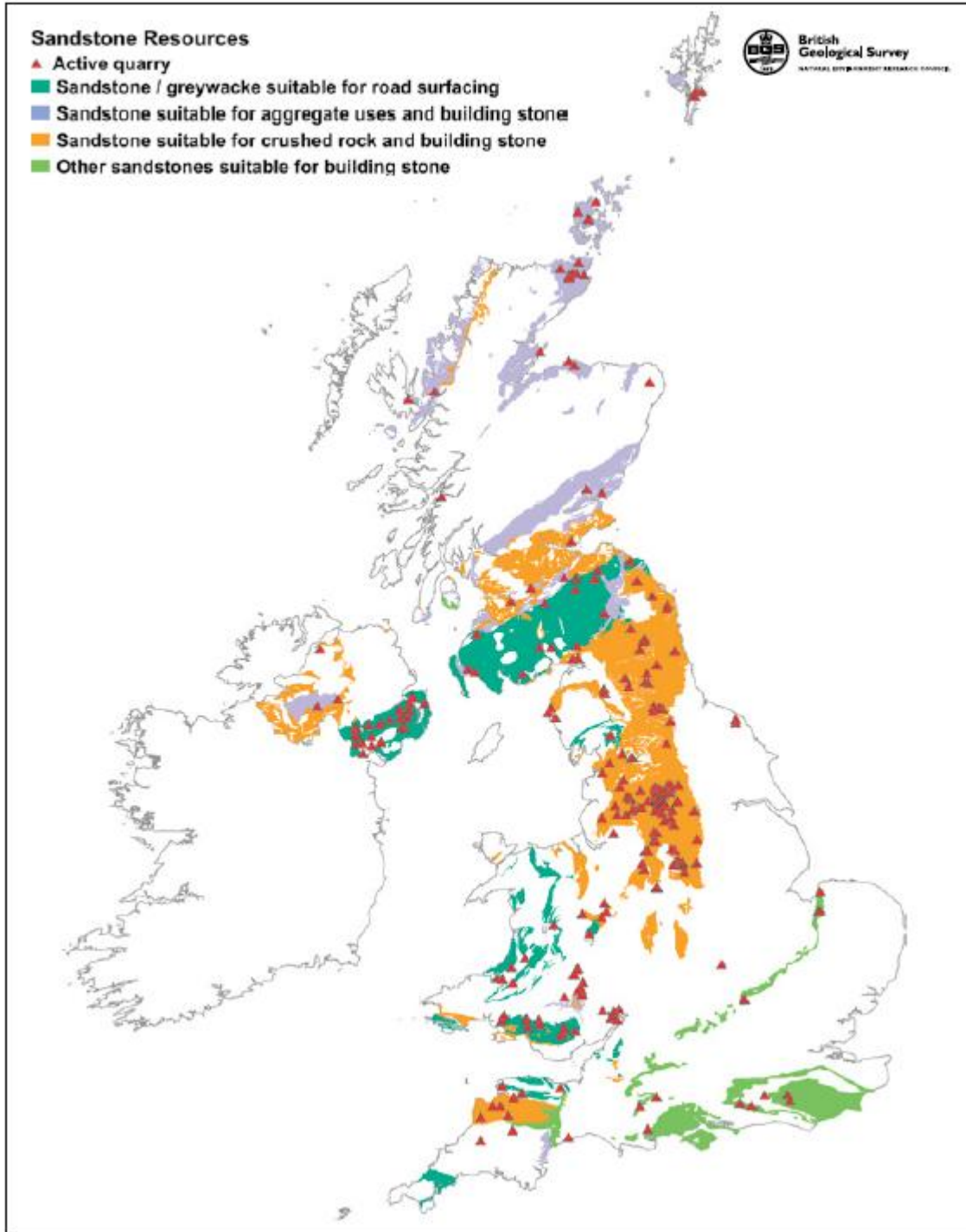


Figure 6 Sandstone resources and workings in the UK in 2014.

Map 4 Marine and Gravel Resources

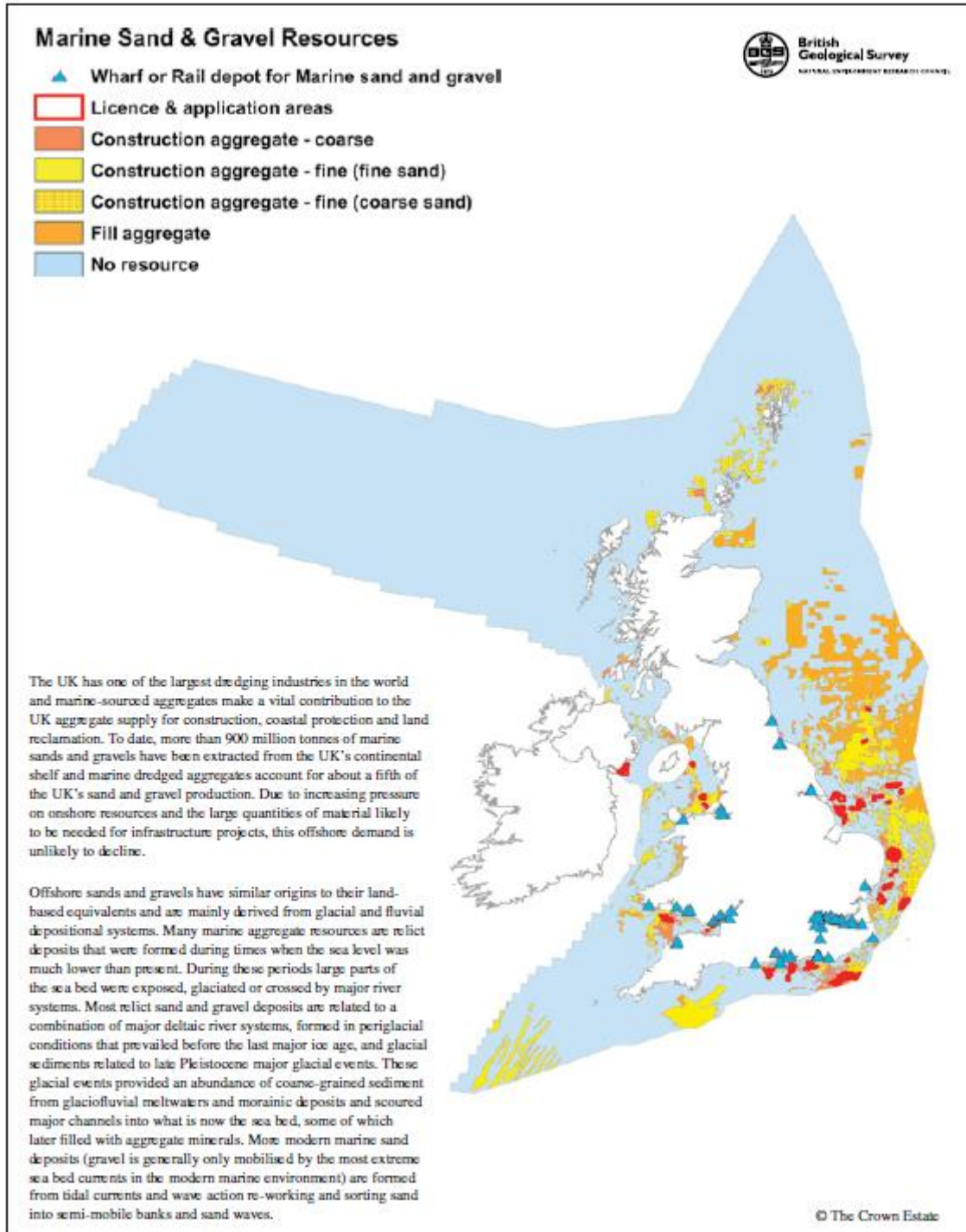


Figure 9 Marine Sand & Gravel resource and licence areas in the UK in 2014.