



Comhairle Ceantair  
**Lár Uladh**  
**Mid Ulster**  
District Council

## **MID ULSTER**

Position Paper Six

### **Public Utilities**

5 May 2015

## **Utilities**

**Purpose:** To provide the Council with an overview of matters relating to public utilities and implications for land use in the Mid Ulster District.

**Content:** The paper provides:

- (i) The regional policy context for public utilities in the Mid Ulster Area**
- (ii) An overview of public utilities in the Mid Ulster Area and their provision in the existing Cookstown, Dungannon and South Tyrone and Magherafelt Area Plans**
- (iii) An outline of the main proposals for public utilities over the plan period**
- (iv) The main implications of the level of provision of public utilities for the amount and location of development in the Mid Ulster Area.**

**Recommendation:** That the Council notes the findings and considers how this preparatory study shall be used to inform subsequent policies and proposals in the Local Development Plan.

## **1.0 Introduction**

**1.1** This preparatory paper is aimed at:

- building the capacity of members to make informed planning decisions, particularly within the plan making context;
- providing baseline information which will inform planning policy making at local level; and
- linking with important ongoing work in relation to the development of a Community Plan and other strategic work being undertaken by the Council.

**1.2** The purpose of this paper is to inform the newly formed Council for Mid Ulster on the provision and spare capacity of public utilities up to 2030 in order to assist judgements on the allocation of housing growth and other development in the new Local Development Plan. It sets out the regional policy context for public utilities and includes an examination of existing physical infrastructure of the new Council area. It examines initial responses from a number of

government bodies and statutory bodies, including the council, whom have a responsibility for the various public utilities in relation to future supply. This paper contains an evaluation of how public utilities can be addressed in the Plan within the context of the RDS, the Strategic Planning Policy Statement and in accordance with the Departments' (DOE) Development Plan Practice Note 5- Preferred Options Paper. It is incumbent upon the Council to consider the availability of infrastructure when accommodating growth and that this can act as a constraint on development or a requirement for new development.

## **2.0 Public Utilities**

**2.1** The provision of public utilities within the plan area is primarily the responsibility of a number of government Departments and statutory bodies as well as the District Councils. The private sector, is however, playing an increasingly important role. In accordance with the Department's Development Plan Practice Note, this paper provides an evaluation of the following utilities:

- Telecommunications
- Recycling and Waste Management
- Flood Risk, Drainage and Water Supply
- Energy Supply and Renewables
- Cemetery provision

**2.2** It is important to note that no information has been received from NI WATER in relation to the capacity of existing Waste Water Treatment Works (WWTW's) in the various settlements across the district. The information has been requested and will be used to update this paper once provided.

## **3.0 Regional Policy Context**

**3.1** The Regional Policy Context is provided by the Regional Development Strategy (RDS) 2035 and regional planning policy statements. A summary of these documents as they pertain to plan making and utilities policy is provided in the following sections.

### **(a) Regional Development Strategy (RDS) 2035**

**3.2** Infrastructure is a key consideration when allocating housing growth. Strategic planning places emphasis on the importance of the relationship between location of housing, jobs, facilities, and services and infrastructure. The RDS sets out clear policy aims and objectives regarding public utilities including:

**3.3 Telecommunications** – Policy RG3 of the RDS 2035 acknowledges that Northern Ireland currently enjoys a first class telecommunications network but that in such a fast moving market, competitive advantage can soon be lost if continued development is not facilitated. Therefore it is important to continually improve international and internal connectivity.

- 3.4** The RDS 2035 envisages that next generation broadband services will be available to provide support for 85% of businesses.
- 3.5** Policy SFG14 of the RDS 2035 also recognises that rural areas can be disadvantaged by their remote location in terms of access to essential services and important information technologies. In this regard, it is important to ensure that telecommunication services in rural areas are not neglected.
- 3.6** Therefore, the key policy aims of the RDS 2035 regarding telecommunications are:
- Invest in infrastructure to facilitate higher broadband speeds, whilst also considering the impact such infrastructure may have on the environment.
  - Increase the use of broadband.
  - Improve telecommunications services in rural areas to reduce rural / urban imbalance.
  - Utilise existing connectivity with North America and mainland Europe in order to further aid foreign and direct investment.
- 3.7** **Energy Supply** – Policy RG5 of the RDS 2035 recognises that there is a need to promote a range of renewable energy sources in order to ensure a more diverse and secure supply of energy for the future. Development consisting of infrastructure to provide renewable energy will be the subject of a Strategic Environmental Assessment or an Environmental Impact Assessment and decision makers will have to balance the impact on the environment against the benefits of a secure, renewable energy source.
- 3.8** Therefore, the key policy aims of the RDS 2035 regarding renewable energy are:
- Increase the contribution of renewable energy sources to the overall energy mix. This will require an increase in the amount of renewable energy and renewable heat installations, both onshore and off shore.
  - Encourage new gas infrastructure including provision of natural gas to further enhance the provision of energy supply
  - Strengthen the grid in order to support the increasing number of renewable electricity installations.
  - Develop smart grid initiatives to improve the responsiveness of the electricity grid. Smart grids are modernized electricity grids which use information and communication technology to monitor data relating to customer behavioural trends and therefore improve the efficiency and sustainability of production.
- 3.9** **Waste Management** – Policy RG10 of the RDS 2035 promotes the implementation of the European Union’s revised Waste Framework Directive<sup>1</sup>. Article 4 of this Directive promotes a 5 step approach to dealing with waste, with each step being ranked according to its environmental impact - the “waste hierarchy.”

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<sup>1</sup> Revised EU Waste Framework Directive (WFD) – Directive 2008/98/EC

**3.10** The “waste hierarchy” promotes waste minimisation as the first four options and states that waste disposal should only happen as a fifth and final option. The “waste hierarchy” is laid out in Figure 1 below.

**TABLE 1. WASTE HIERARCHY**

		STAGES	DETAIL
WASTE MINIMISATION	}	<b>STAGE 1 - PREVENTION</b>	using less material in design and manufacture, keeping products for longer, re-use, using less hazardous materials
		<b>STAGE 2 – PREPARING FOR REUSE</b>	checking, cleaning, repairing, refurbishing, whole items or spare parts
		<b>STAGE 3 - RECYCLING</b>	turning waste into a new substance or product, includes composting if it meets quality protocols
		<b>STAGE 4 - RECOVERY</b>	includes anaerobic digestion, incineration with energy recovery, gasification and pyrolysis which produce energy (fuels, heat and power) and materials from waste, some backfilling
		<b>STAGE 5 - DISPOSAL</b>	landfill and incineration without energy recovery

**3.11** As well as promoting the “waste hierarchy,” the RDS 2035 also promotes the “proximity principle” which states that waste should be dealt with as close as possible to the point of generation in an effort to minimise the negative effects of waste transportation.

**3.12 Water, sewerage and flood risk** – Policy RG12 of the RDS 2035 advises that increased population, changes in household formation and climate change are putting pressure on our water resources and drainage systems. Therefore, the planning for the provision of water and sewage infrastructure and treatment facilities is both a practical and environmental necessity for regional development.

**3.13** As part of the housing evaluation framework, the “resource test” states that when assessing land to be potentially zoned for housing, consideration must be paid to the water, sewerage and waste infrastructure of an area to ensure that it is adequate to support the provision of future housing.

**3.14** Therefore, the key policy aims of the RDS 2035 regarding water and sewerage are:

- The integration of water and land use planning. Land use planning should be informed by current water and sewerage infrastructure and the capacity of that infrastructure to absorb future development. This will involve the planning authority working in conjunction with NI Water.

- Manage future water demand by reducing waste. To help manage future water demand in new developments, initiatives such as grey water recycling and rainwater harvesting should be promoted.
- Encourage sustainable surface water management. This will involve the encouragement of initiatives such as Sustainable Development Systems (SuDS) in significant development proposals. SuDS endeavour to use natural systems with low environmental impact (such as trans- evaporation) to dispose of dirty water and surface water in order to reduce the amount of water being released back into water courses.

**3.15** In relation to development and flood risk, Policy RG8 of the RDS 2035 states that residential development should not take place in areas which are known to be at risk of flooding. This policy also states that as part of the Housing Evaluation Framework, an assessment of flood risk should be considered when allocating land for housing growth.

**3.16** Similarly, Policy RG1 of the RDS 2035 states that when allocating land for economic growth and employment, areas which are at risk of flooding should be avoided, where possible.

**(b) Draft Strategic Planning Policy Statement (SPPS)**

**3.17** A draft SPPS was launched for consultation in February 2014 and is intended to combine 20 different planning policy statements into one policy. Therefore the council needs to be mindful of the key objectives in the SPPS when preparing the local development plan. The draft SPPS contains objectives in respect of a range of the utilities included in this paper and sets out considerations that councils may wish to pursue in the preparation of LDP's:

**Telecommunications** – the development of high quality telecommunications infrastructure is essential for continued economic growth. Growth of new telecommunications infrastructure should be promoted whilst keeping the impact on the environment to a minimum. The policy states that where new infrastructure is required then it should be sited in a location which minimises the impact in terms of visual, environmental and amenity issues.

LDP preparation: the council may discuss with telecommunications operators the anticipated extent of the network coverage required over the plan period. LDPs may in certain circumstances and, subject to technical limitations on location and siting, allocate specific sites for major new telecommunications development. LDPs should bring forward policies which set out the detailed criteria for consideration of new telecommunications development in its area including siting, design and impact upon visual amenity.

Policy Objectives :

- ensure that where appropriate new telecommunications development is accommodated by mast and site sharing;
- ensure that the visual and environmental impact of telecommunications development is kept to a minimum;

- minimise, as far as practicable, undue interference that may be caused to terrestrial television broadcasting services by new development; and
- encourage appropriate provision for telecommunications systems in the design of other forms of development.

**Energy Supply & Production-** Promote increased contribution of renewable energy to overall energy supply whilst addressing environmental, visual and amenity issues and protecting the natural and built heritage. The SPPS seeks to facilitate the siting of renewable energy generating facilities in appropriate locations within our built and natural environment in order to achieve Northern Ireland's renewable targets. Overhead power lines should avoid areas of landscape sensitivity including areas of Outstanding Natural Beauty (AONB's).

LDP preparation: councils should set out policies and proposals that support a diverse range of renewable energy development taking into account the above-mentioned policy objectives. Plans should clearly set out the factors that will be taken into account for decision-making. These factors will depend on the scale of the development and its local context, but are likely to include matters such as: public safety, human health, residential amenity; visual amenity and landscape character; biodiversity, nature conservation, built heritage interests; local natural resources, such as air quality or water quality; public access to the countryside; cumulative impact; communications interference; and wider environmental, economic and social benefits

Policy Objectives :

- ensure that the environmental, landscape, visual and amenity impacts associated with or arising from renewable energy development are adequately addressed;
- ensure adequate protection of the region's built, natural, and cultural heritage features;
- facilitate the integration of renewable energy technology into the design, siting and layout of new development and promote greater application of the principles of Passive Solar Design

**Flood Risk & Drainage-** Prevent future development that may be at risk from flooding or that may increase risk of flooding. Promote sustainable development through the retention and restoration of natural flood plains and natural watercourses as a form of flood alleviation and an important environmental and social resource. Promote sustainable development through encouraging the use of sustainable storm water management for the drainage of new development.

LDP preparation: LDPs should also promote sustainable drainage within the plan area, for example by requiring such solutions, where appropriate to individual zonings, as a key site requirement.

Policy Objectives:

- prevent inappropriate new development in areas known to be at risk of flooding, or that may increase the flood risk elsewhere;
- ensure that the most up to date information on flood risk is taken into account when determining planning applications and zoning / designating land for development in LDPs;
- adopt a precautionary approach to the identification of land for development through the LDP process and the determination of development proposals, in those areas susceptible to flooding where there is a lack of precise information on present day flood risk or

<p>climate change flood risk</p> <ul style="list-style-type: none"> <li>• seek to protect development that is permitted within flood risk areas by ensuring that adequate and appropriate measures are employed to mitigate and manage the flood risks;</li> <li>• promote sustainable development through the retention and restoration of natural flood plains and natural watercourses as a form of flood alleviation and an important environmental and social resource;</li> <li>• promote sustainable development through encouraging the use of sustainable storm water management for the drainage of new development;</li> <li>• promote public awareness of flood risk and the flood risk information that is available and of relevance to undertaking development;</li> </ul>
<p><b>Waste Management</b> – The SPPS promotes adherence to the Northern Ireland draft Waste Management Strategy published in 2013. In line with the RDS, this promotes the 5 step Waste Hierarchy</p> <p><u>LDP preparation:</u> In preparing LDP's, councils should assess capacity of the existing waste management facilities and should identify specific sites for the development of future facilities. The impact of existing or proposed waste management facilities on neighbouring areas should be considered. LDP's should also take into account the 5 step Waste Hierarchy and should bring forward policies for determining all proposals for waste management facilities.</p> <p><u>Policy Objectives:</u></p> <ul style="list-style-type: none"> <li>• promote development of waste management and recycling facilities in appropriate locations;</li> <li>• ensure that detrimental effects on people, the environment, and local amenity associated with waste management facilities (e.g. pollution) are avoided or minimised; and</li> <li>• secure appropriate restoration of proposed waste management sites for agreed after-uses.</li> </ul>

**(c) Existing Planning Policy Statements**

**3.18** The following Planning Policy Statements currently provide the planning policy context for the assessment and determination of utility developments and include:

- PPS 10- Telecommunications
- PPS 11- Planning and Waste Management
- PPS 15-Planning and Flood Risk
- PPS 18-Renewable Energy
- PPS 21- Sustainable Development in the countryside
- A Planning Strategy for Rural NI
- Supplementary Planning Guidance- Wind Energy in Northern Ireland's Landscapes



The key issues from these policy statements relevant for the LDP preparation include:

- Facilitating the continued development of telecommunications infrastructure but ensuring that visual and environmental impact is kept to a minimum;
- The council may consult with telecommunications operators over the plan period to ascertain the extent of network coverage in plan area and over plan period. The council may allocate certain sites for the provision of tall masts to encourage site sharing;
- Promoting the development, in appropriate locations, of waste management facilities to meet need as identified by the Waste Management Plan;
- Consideration of the impact of existing or proposed waste management facilities when zoning land for development and ensuring incompatibility of adjacent land uses are avoided. The COMAH Directive (EU Directive 96/82/EC) requires development plans to ensure that appropriate distances are maintained between hazardous substances and residential areas of public use / open space;
- A presumption against development within designated floodplains;
- Promotion of development of renewable energy resources which will not negatively impact on the environment, landscape or amenity of nearby land uses;
- Careful consideration must be given to distinctive landscape areas including Lough Neagh Basin and Clogher Valley when considering wind energy proposals;
- Integration of new electricity powerlines and cables into the existing landscape and townscape;
- Development relying on non-mains sewage will only be acceptable were it does not create or add to a pollution problem.

## **4.0 Existing Area Plans covering Mid Ulster**

- 4.1** The Area Plans for Cookstown, Magherafelt and Dungannon are the statutory plans for the Mid Ulster District and provide the framework against which to assess development proposals. The three main towns also have their own specific Town Centre Masterplans which were completed by the Department of Social Development (DSD) in conjunction with the local council and are concerned with urban regeneration initiatives in each respective town centre.
- 4.2** Information on constraints upon development within the respective development plans, which are related to utility provision, is laid out below, as well as relevant information contained within each town centre master plan.

### **Cookstown Area Plan 2010 (CAP 2010)**

**4.3** Drainage – There are certain areas where flood risk is a particular concern:

- Ballinderry River; West bank downstream from Kings Bridge
- Ballinderry River; west bank near Glenavon Hotel, downstream from Derryloran Bridge
- Ballinderry River, Coagh
- Ballymully River, Moneyhaw area of Moneymore

In keeping with the RDS 2035, the CAP advocates the use of Sustainable Urban Drainage Systems (SuDS) in order to promote sustainable drainage.

**4.4** Sewage Capacity – an area of land located at the junction of Tullynagee Road and Turnaface Road, Moneymore has been zoned as an area of constraint on development by virtue of limited sewage infrastructure.

**4.5** Waste – The Magheraglass landfill site was opened in 1997 and has a life expectancy of approximately 25 years.

#### Cookstown Town Centre Masterplan

**4.6** The Masterplan has identified the need for the provision of higher quality telecommunications and has floated the idea of a town centre wireless (WIFI) network, both of which would contribute to an increase in job opportunities and an improved quality of life within the town centre.

### **Dungannon and South Tyrone Area Plan 2010 (DSTAP 2010)**

**4.7** Drainage – There are certain areas where flood risk is a particular concern:

- Augher, Clogher, Moy and Caledon on the River Blackwater
- Castlecaulfield, Donaghmore, Newmills on the Torrent River
- Ballygawley River at Ballygawley

### **Magherafelt Area Plan 2015 (MAP 2015)**

**4.8** Drainage - Areas which are noted for being at risk of flooding are as follows:

- South of Maghera
- North and East of Tobermore
- South of Castledawson
- Upperlands
- Curran
- Culnady
- Clady
- Inishrush

- East of Tamlaght

## Utility Provision in Mid Ulster

### 5.0 Telecommunications and Broadband

5.1 The broadband market in Northern Ireland is fully privatised with the principal provider being British Telecom (BT) with other providers such as Plusnet, EE and SKY. Northern Ireland currently enjoys the best fixed line broadband infrastructure in the UK<sup>2</sup> although there are some rural areas which still have limited connectivity.

5.2 In accordance with the aims of the RDS 2035 and the draft SPPS, it is vital to ensure that we continue to improve the broadband network in order to ensure that businesses remain competitive and that rural communities do not feel cut off or isolated.

5.3 There have been numerous improvements to the broadband network which have taken place in recent years and the Mid Ulster District has benefited from these;

#### Broadband Improvement Project

5.4 This project is designed to provide for the first time, improve or increase broadband services in certain areas. Work began in February of 2014 and it is envisaged that work will finish at the end of 2015.

5.5 Work has already taken place to improve or provide broadband in the following areas within the Mid Ulster District<sup>3</sup>;

- Aughnacloy
- Ballyronan
- Bellaghy
- Caledon
- Coagh
- Cookstown
- Draperstown
- Maghera
- Magherafelt
- Moneymore
- Toomebridge
- Tulnacross

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<sup>2</sup> Irish Central Border Area Network (ICBAN) Telecommunications Action Plan

<sup>3</sup> [www.nidirect.gov.uk/broadband-improvement-project](http://www.nidirect.gov.uk/broadband-improvement-project)

### Next Generation Broadband Project

- 5.6** This project was launched by DETI in a bid to increase the competitiveness of local businesses. It aimed to update around 1265 telecommunications cabinets with fibre technology so that broadband speeds could be increased. Work has been completed on this project across Northern Ireland including in the Mid Ulster District. For example towns such as Dungannon, Moneymore, Coalisland and Magherafelt can now connect to broadband speeds of up to 10MB per second.

### Northern Ireland Broadband Fund

- 5.7** This was a £1.9m fund which was set aside to help support projects which aimed to improve broadband across Northern Ireland. In the Mid Ulster District, there were three projects which benefitted from this fund:
- a) Installation of a WIMAX wireless broadband connection in the Ballyronan Area
  - b) Delivery of improved Broadband using fixed wireless technology in an area running from Augher to Lough Melvin in Fermanagh.
  - c) Installation of a WIMAX wireless broadband connection in Dungannon.
- 5.8** The installation of apparatus to improve the Broadband network will usually constitute Permitted Development under Part 18 of the Schedule to the Planning (General Permitted Development) Order (Northern Ireland) 2015. As such, it is not envisaged that the planning process will have an impact on the provision of such development.

### **Telecommunications and Mobile Data Coverage**

- 5.9** The Irish Central Border Area Network (ICBAN) is a cross border organisation which exists to improve the quality of life and increase prosperity in the central Ireland / Northern Ireland border area. The former councils of Dungannon South Tyrone District and Cookstown District were members of ICBAN. Part of ICBAN's role is to examine the telecommunications infrastructure in the area and seek to improve the provision of the same.
- 5.10** (ICBAN) have stated that whilst the fixed line broadband coverage in Northern Ireland is the best in the UK, mobile broadband coverage is the poorest in the UK.<sup>4</sup> Mobile Data Coverage in the Mid Ulster District, like the majority of the west of Northern Ireland, is poor by comparison to the rest of the UK.
- 5.11** Table 2 below sets out the availability of 3G data coverage in the Mid Ulster district as broken down by the historic LGD areas. The low percentage of 3G coverage in the Magherafelt area is notable, with only the Moyle District

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<sup>4</sup> Irish Central Border Area Network (ICBAN) Telecommunications Action Plan

having lower coverage in the whole of Northern Ireland. The information is taken from the OFCOM UK Mobile Services Map 2013.

**Table 2 – Mobile Data coverage in MID Ulster District**

AREA	% OF PREMISES WITH 3G COVERAGE FROM ALL OPERATORS	% OF GEOGRAPHICAL AREA WITH 3G COVERAGE FROM ALL OPERATORS
<b>COOKSTOWN</b>	50.5%	22.7%
<b>MAGHERAFELT</b>	0.6%	1.7%
<b>DUNGANNON</b>	33.6%	9.9%

**5.12** 3G is the most common type of mobile broadband connection but 4G broadband connectivity is more recent and is the fastest mobile connection available. Similar to 3G coverage, 4G coverage in Mid Ulster with the two main providers, O2 and Vodafone is relatively poor. A less popular provider, EE, does provide significant 4G coverage for the Mid Ulster District. The extent of 4G coverage for the main providers is laid out below. Information is taken from each providers “coverage checker map.”

**Table 3 – Extent of 4G coverage in Mid Ulster**

PROVIDER	DESCRIPTION OF COVERAGE IN MID ULSTER
VODAFONE	<p>No coverage in Mid Ulster District apart from the following areas where coverage is available;</p> <ul style="list-style-type: none"> <li>• Sporadic outdoor coverage (variable indoors) to the west of Pomeroy.</li> <li>• Sporadic outdoor coverage (variable indoors) to the North of Fivemiletown and Ballygawley</li> <li>• Sporadic outdoor coverage near Moygashel and Coalisland.</li> <li>• Sporadic outdoor coverage near Drpaerstown</li> <li>• Good indoor and outdoor coverage at Moy.</li> </ul>
O2	<p>No coverage in Mid Ulster District apart from the following areas where coverage is available;</p>

	<ul style="list-style-type: none"> <li>• Good outdoors and indoors at Moy</li> <li>• Good outdoors North of A4 between Fivemiletown and Clogher</li> </ul>
EE	<p>Widespread coverage in Mid Ulster District apart from the following areas;</p> <ul style="list-style-type: none"> <li>• No coverage from Kileeshil area to Fivemiletown along the A4</li> <li>• No coverage from Aughnacloy to Caledon</li> <li>• No coverage north of Maghera</li> <li>• No coverage along lough shore from Ballyronan to Ardboe</li> </ul>

**5.13** Strong connectivity to mobile data services is vital in supporting businesses who need to operate on the move and also for connecting rural communities who may feel cut off or isolated from other parts of the community. As can be seen from the tables above, mobile broadband connectivity in Mid Ulster is poor with significant room for improvement.

**5.14** ICBAN have stated that one of the reasons for poor mobile coverage in Northern Ireland is that “the planning regime for mobile infrastructure in Northern Ireland may be too onerous, being tougher than the corresponding regimes for England, Scotland and Wales<sup>5</sup>.”

**5.15** As part of its Action Report, IBCAN have suggested that the planning authorities in Northern Ireland should consult with operators to identify what the barriers are to providing a better mobile broadband service.

**5.16** Moving forward, it is for the council to decide if they wish to adopt policies for telecommunications development which are in line with existing policy or if they want to develop a more restrictive policy, for example, having regard for the visual impact of telecommunications infrastructure. To a lesser extent than in the past, concerns amongst some concerning potential health implications also exist, however these concerns remain unfounded

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<sup>5</sup> Irish Central Border Area Network (ICBAN) Telecommunications Action Plan

## **5.17 Options for Council in considering Telecommunications**

Having evaluated the information available in respect of telecommunications, the options for the council are to:

1. Adopt policies which are in line with existing planning policy contained within Planning Policy Statement 10 (PPS 10) Telecommunications;
2. Develop a more restrictive policy, having regard to concerns over potential health implications, visual and/or environmental impact on the landscape;
3. Develop an approach which promotes the development of telecommunications infrastructure whilst also paying close attention to the impact such development will have. This may mean for example, that certain areas are designated at local policies plan stage as areas where no telecommunications development will be permitted in order to protect sensitive landscapes, provided there is not a recognised 'Not Spot' at that location i.e. no telecommunication coverage at all. Any such policy changes would be brought through the introduction of Countryside Policy Areas.

- 5.18** Due to the fact that concerns over the health implications of telecommunications development have been unfounded, and that to restrict such development would perhaps have a negative impact on the economy, it would perhaps be unwise to adopt option 2. By adopting option 3, the council would be able to continue to support telecommunications development whilst also safeguarding areas which are considered to be of particular scenic value or environmental importance.

## **7.0 Recycling and Waste Management**

- 6.1** The DOE is responsible for the drafting of legislation on waste and implementation of waste management policy and the promotion of a more sustainable approach to dealing with waste in Northern Ireland. The District Councils are responsible for the collection and disposal of waste in their area. Recycling and composting is similarly the responsibility of the councils and is facilitated through the provision of domestic recycle bins, bottle banks and civic amenity sites throughout the district. Mid Ulster Council provides a bulky household waste collection service for those who cannot transport their waste to civic amenity sites.

- 6.2** The Northern Ireland Waste Management Strategy 'Delivering Resource Efficiency', (DOE 2013) contains actions and targets to meet EU Directive requirements. This strategy moves the emphasis of waste management in Northern Ireland from resource management with landfill diversion as the key driver, to resource efficiency i.e. using resources in the most effective way while minimising the impact of their use on the environment. It is the

responsibility of the district councils to prepare a Waste Management Plan (WMP) under the provisions of the Waste and Contaminated Land (Northern Ireland) Order 1997.

- 6.3** Three sub-regional voluntary groups were formed in Northern Ireland in recognition of the mutual benefits to be gained from a regional approach to waste management planning. Both Cookstown and Dungannon Councils were member councils of the Southern Waste Management Partnership (Swamp 2008) which was originally formed in 2000. Magherafelt Council was a member council of the North West Region Waste Management Group which was established in 1999. Each group formed a Waste Management Plan for their area. The Swamp group currently have a draft WMP, which is a review of the WMP prepared in 2006, setting out the arrangements for waste management within the Swamp Region over the period up to 2020.
- 6.4** The North West Region Partnership's 'Review of the Waste Management Plan 2006-2020, was DOE determined in January 2015. This plan also sets out arrangements for waste management and covers the period from 2012 to 2020.
- 6.5** In terms of existing infrastructure the Mid Ulster Council operates 12 centres for recycling and disposing of household waste in the District as tabled below.

**Table 4 - Existing Recycling Centres in Mid Ulster**

Recycling Centre	Location
Ballymacombs Recycling Centre	Ballymacombs Road (near Bellaghy)
Castledawson Recycling Centre	Moyola Road, Castledawson
Clogher Recycling Centre	Fintona Road, Clogher
Coalisland Recycling Centre	Derry Road, Coalisland
Cookstown Recycling Centre	Molesworth Street, Cookstown
Draperstown Recycling Centre	Workspace Industrial Estate, Magherafelt Road, Draperstown
Drumcoo Recycling Centre	Coalisland Road, Dungannon
Fivemiletown Recycling Centre	Screeby Road, Fivemiletown
Maghera Recycling Centre	Station Road Industrial Estate, Maghera
Magherafelt Recycling Centre	Ballyronan Road (adjacent to Council offices)
Moneymore Recycling Centre	Moneyhaw Road, Moneymore
Tullyvar Recycling Centre	Tullyvar Road, Aughnacloy

- 6.6** There are 3 landfill sites in the Mid Ulster District located at Ballymacombs Road, Bellaghy, Tullyvar, Aughnacloy, and Magheraglass, Cookstown. The site at Ballmacombs Road is temporarily closed and has a temporary cap. It is estimated that there could still be up to 40,000 tonnes of capacity in this site



and it will be required to be filled at some stage to produce the proper contours required for permanent capping and closure. There is void capacity at the Tullyvar landfill Site for the 15 year period of the Local Development Plan if required. The landfill site at Magheraglass may close by 2017 however there is a waste transfer station operating at this site which will continue for the foreseeable future.

**6.7** In consultations with the former Cookstown, Dungannon and Magherafelt Councils the following issues and proposals regarding future waste management have been identified as issues currently being reviewed or implemented:

- There are proposals to carry out redevelopment works at both the Drumcoo and Coalisland civic amenity sites. Budgetary spend has been approved for the Drumcoo site and also for the Coalisland site pending clarification on land ownership issues.
- The Clogher recycling centre is restricted in terms of operational capacity and this issue has been raised with the (Dungannon) council.
- There would be a future need for a transfer station to be located somewhere in the Dungannon area.
- Consideration to amending some operations at the Cookstown Recycling Centre and amended planning approval may be sought in the near future. The adjacent council property at Station Yard, Molesworth Street, Cookstown has been earmarked as a potential location for a future waste transfer station.
- The Moneymore recycling centre has benefited from recent improvements and is appropriate for the requirements of nearby settlements.
- The Mid Ulster District Council are currently in the process of obtaining a license for a bio-waste transfer for brown bin waste in the Council Depot at Magherafelt. It currently operates a composting exemption for brown bins but with a change in the process a licence for bio-waste transfer is now required. A more specialised dedicated transfer facility in the future for black and brown bin material may need to be considered for the Magherafelt Depot.
- The council owns an old landfill site on the Mullagh Road, just outside Maghera. This site may be a suitable site for future waste management facilities if required.
- All three previous councils highlighted that there was no requirement for additional landfill facilities in the District.

These issues do not need strategic policy change as they are local matters that can be addressed by the LDP.

**6.8** Planning can contribute to the timely provision of an integrated network of waste facilities which are essential if EU targets are to be met. Following the recent transition on 1<sup>st</sup> April 2015 of the three councils to form the new Mid Ulster District Council, the future of the waste management in the District is likely to be subject to change. The Mid Ulster Council will prepare their own WMP this year to replace the two existing WMP's. The Local Development

Plan will be prepared having regard to this new Waste Management Plan. There is no requirement for work on the LDP Plan Strategy or Local Policies Plan to be delayed in anticipation of the forthcoming WMP. Proposals regarding waste management can continue to be dealt with by way of the development management process. In the event that the Council needs to safeguard land for waste management to cater for the municipal waste needs of the district over the plan period this can be done at the Local Policies Plan Stage.

**6.9** It is also important to note that the recycling and use of waste for energy production is a growth area in the private sector.

**7.0 Flood Risk, Drainage and Water Supply**

**Water Supply**

**7.1** The responsibility for the provision of water supply within the district is the responsibility of Northern Ireland Water (NI WATER).

**7.2** The Mid Ulster district is supplied with water from a variety of sources;

**Table 5- existing water Supply in Mid Ulster**

<b>NATURAL WATER SOURCES</b>	<b>SERVICE RESERVOIRS</b>	<b>WATER TREATMENT WORKS</b>
Lough Neagh	Magherafelt Road (Moneymore)	Moyola WTW (Castledawson)
Lough Fea	Unagh	Castor Bay WTW (Dungannon)
	Mullaghboy Hill (Magherafelt)	Seagahan WTW (Lurgan)
	Windmill Hill	Killyhevin WTW (Enniskillen)
	Guladuff	
	Draperstown	

**7.3** These existing installations are expected to be sufficient to supply the Mid Ulster District throughout the Plan period and there are no significant proposals to be shown in the plan. The lack of water supply is not considered to be a likely constraint upon development.

**Sewerage Facilities**

**7.4** The provision of sewage treatment facilities in the Plan Area is also the responsibility of NI WATER.

- 7.5** The RDS 2035 proposes that the Mid Ulster District will need approx 13,300 new houses by 2025<sup>6</sup> so it is important to bear in mind the impact that this housing need will have on the existing sewage network capacity.
- 7.6** When preparing the LDP, the potential capacity of the existing sewage infrastructure in an area will have a bearing on whether or not land is zoned for new development. The information contained within the Cookstown and Dungannon South Tyrone area Plans relating to the capacity of WWTW's was collected from the relevant authority some time ago and due to the passage of time cannot be relied upon for the purpose of preparing the LDP. The same information from the Magherafelt Area Plan is contained in Appendix 2. However, it should be noted that whilst this information is slightly more up to date, it may not provide a totally accurate reflection of the WWTW capacity that exists today.
- 7.7** A request for information regarding the capacity of the existing WWTW's in the district has been sent to NI WATER. Once this up to date information has been received, the extent of any constraint placed on development because of WWTW capacity will be clear. This paper will therefore be updated once the information becomes available.
- 7.8** Proximity to existing WWTW will also be a factor in considering the location of new development land as part of the LDP. When selecting land for development, it is generally desirable to avoid land which is near existing treatment works as these can cause nuisance. Guidelines are in place between DOE Planning and NI WATER regarding what can be considered acceptable distances between development and WWTW's. For example, a WWTW with a design equivalent population of 5,000 should not be within 300m of inhabited development.
- 7.9** The EU "Floods Directive" (2007/060/EC) came into force on the 26<sup>th</sup> November 2007 and aims to establish a framework that will contribute to reducing the impact of flooding on communities and the environment.
- 7.10** Compliance with this Directive is the responsibility of the Rivers Agency (Department of Agriculture and Rural Development) and they have begun implementing the directive by establishing flood risk and hazard maps which were published in 2013.
- 7.11** With specific reference to flooding in each river basin, DARD are currently planning to publish specific Flood Risk Management Plans (FRMP's) for the three River Basin areas in Northern Ireland (Neagh – Bann, North West and North East). These plans are currently at consultation stage and will hopefully

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<sup>6</sup> Housing Growth Indicator (HGI) – RDS 2035, p101

be published in December 2015 and the council should ensure that the new LDP is compatible with these FRMP's.

**7.12** Rivers Agency Planning Advisory Unit advises on the flooding potential for individual sites which are the subject of specific planning applications and where flooding is likely to occur. Rivers Agency will operate a presumption against development in accordance with Planning Policy Statement 15 (PPS 15). Rivers Agency has advised that any flooding policy prepared as part of the policies plan should be closely aligned with the current planning policy i.e. PPS 15.

**7.13** If not controlled in the correct way, development can increase flood risk by:

- a) using up land which is required for flood relief pondage.
- b) allowing new development to take place on land which is in danger of flooding and therefore posing a threat to the safety of that new development
- c) increasing the volume of water which is entering a particular watercourse in the form of sewage or industrial effluent runoff.

**7.14** Information from the Rivers Agency Flood Maps (Strategic Flood Map / Flood Hazard Map) is summarised in Tables, (a), (b) and (c) in Appendix 3. This identifies lands in existing settlements in the Mid Ulster District which have a 1% chance of flooding in any given calendar year. The list should not be considered exhaustive.

**7.15** When preparing local policies as part of stage 2 of the Development Plan process, the council should ensure that land which has been identified as being at risk of flooding is not zoned for certain types of development such as housing or industry. Such zoning would eradicate the natural function of such land as a flood relief pondage area. The LDP should also take account of the "Climate Change" Flood map (see Appendix 4) as well as the information contained in the Strategic and Hazard Flood Maps.

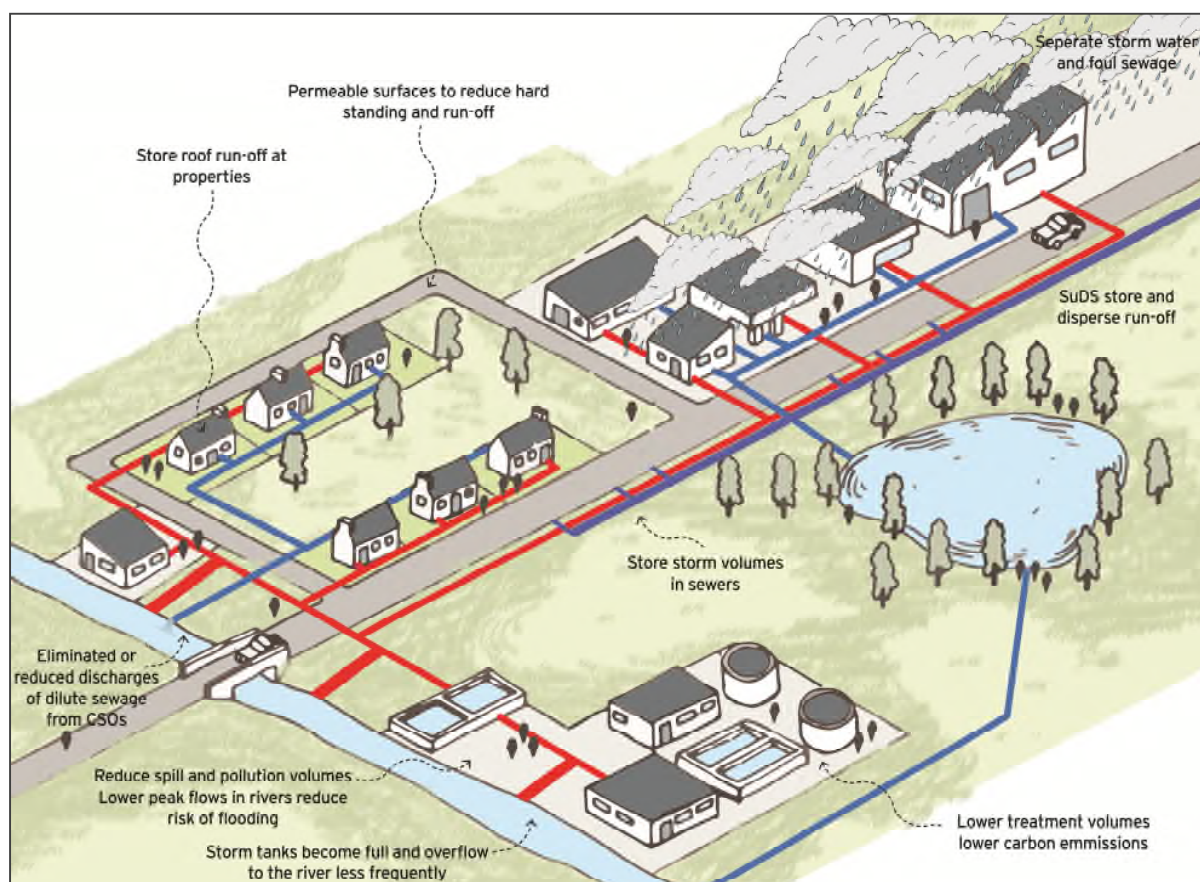
**7.16** When zoning land for development, the council should avoid land which has been identified as being at risk of flooding. Even if the proposal involves altering the levels of the land to mitigate against the potential for flooding, this will only serve to shift the flood risk to another location further along the water course.

**7.17** The council should be aware that there are certain areas which are subject to planned flood alleviation schemes. These schemes are yet to be commenced and are currently at design stage meaning it may be several years before they are implemented. They are located at the following locations;

- (i) Coalisland Flood Alleviation Scheme
- (ii) Bocketts Road, Ballygawley

- 7.18** The Department for Regional Development (DRD) has launched a consultation paper entitled “Sustainable Water” on the best way forward for managing the water supply in Northern Ireland. The paper has 5 parts and was launched for public consultation in June of 2014. The final paper is expected to be released in summer of 2015.
- 7.19** Part 3 of the document entitled “Flood Risk Management and Drainage” is relevant to the preparation of development plans and planning policy. The document makes a range of recommendations through its policies, which may be considered when preparing the Local Development Plan.
- 7.20** It calls for the construction of “resilient development” which can withstand extreme rainfall events with minimal or no flood damage. The document also stresses that the planning authority should prevent development in areas of high flood risk and ensure that future development does not increase flood risk. The document proposes achieving these aims through the following measures;
- When zoning land for development, large surface water schemes such as lakes, wetlands and wet woodlands could be created to meet the future drainage needs of proposed development in the area. A local example is the Craigavon Balancing Lakes, created in the 1970’s to take rainwater from built up areas of Craigavon and which also provide a recreational facility.
  - Planning policy could require, at design stage, that drainage proposals are considered so that the final design can be such that surface water run-off is minimised. It is likely that a range of SuDS will need to be employed to ensure this. Examples of such are green roofs, permeable paving, soak aways, ponds and wetlands.
  - Planning Policy should require that SuDS are the preferred option for all new development. The Diagram below shows how Sustainable Drainage Systems work.
  - Planning Policy should incorporate the requirement for “design for exceedance” proposals in all new development. This means that new development must show how the proposed drainage system will cope in the event of water run off flows exceeding normal or expected levels.

## DIAGRAM 1 – SUSTAINABLE DRAINAGE SYSTEMS



**7.21** Taking account of this information, the council may, when preparing a Local Development Plan and local planning policies, try to ensure that the following objectives are realised;

- Ensure that development land is zoned in areas where the “headroom capacity” of existing Waste Water Treatment Works is such that development can be supported by sewerage infrastructure.
- Avoid zoning land for habitable development in or close to existing WWTWS’s
- Ensure the LDP is compatible with and compliments the Flood Risk Management Plans which will be published by DARD at the end of 2015
- Avoid zoning land for habitable development which has been identified as being at risk of flooding, either on the Strategic / Hazard / Climate Change Flood Maps.
- Formulate planning policy which makes drainage a key element of design and which promotes the use of SuDS.

## 8.0 Reservoirs

**8.1** The incoming Reservoirs Bill (Northern Ireland) will attempt to ensure that the existing 130-150 reservoirs in Northern Ireland are managed in a more efficient and safety conscious manner.

- 8.2** Where development is proposed in close proximity to a reservoir, the developer will be required to submit a detailed flood risk assessment to show how the development will not be at risk of flooding from the nearby reservoir.
- 8.3** Consequently, when preparing an LDP the council should not allocate land for development close to existing reservoirs. To do so would be to require the developer to carry out a flood risk assessment, thus complicating the planning application process.
- 8.4** In the Mid Ulster District, there are 15 reservoirs and these are detailed below. Most of these reservoirs are in, or close to, rural settlements.

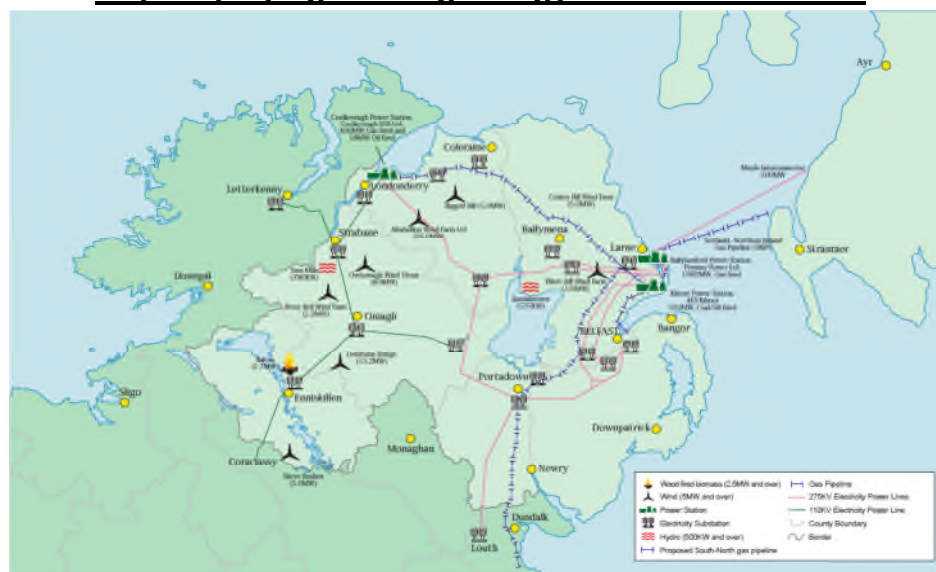
**Table 6 - Existing reservoirs in Mid Ulster District**

NAME OF RESERVOIR	LOCATION
Aghintain	Fivemiletown
Altmore	Cappagh
Black Lough	Dungannon
Cappagh	Cappagh
Killyfaddy	Clogher
Lough Fadda	Fivemiletown
The Park Lake	Dungannon
Brookend Park	Ardboe
Drum Manor Fish Ponds (Upper and Lower)	Cookstown / Kildress
Rectory Lodge (Lake 1 and Lake 2)	Cookstown
Lough Fea	Cookstown / Draperstown
Craigs - Upperlands	Upperlands
Green Dam	Uppelands
Island Dam	Upperlands
New Dam	Upperlands

## **9.0 Energy Supply- Electricity**

- 9.1** Energy in the District is primary produced by the use of fossil fuels to generate electricity. There are three fossil fuel generating plants in NI, located at Ballylumford (Islandmagee, Antrim), Kilroot (Carrickfergus) and Coolkeeragh (L'Derry) which supply electricity to a wholesale market known as the Single Electricity Market (SEM- a wholesale market across the island of Ireland). Mutual energy Limited also supplies electricity to the pool via the Moyle interconnector. To underpin economic growth, the Mid Ulster District needs a modern and sustainable economic infrastructure including robust electricity connections. Electricity supply in the Mid Ulster District and NI as a whole is not an issue. Therefore current policy regarding electricity provision is operating suitably and it is considered that it does not require review.

## Map displaying existing energy infrastructure in NI



Source: [www.detni.gov.uk](http://www.detni.gov.uk)

### 10.0 Renewable Energy

**10.1** The European Commission's Renewable Energy Directive (2009/28/EC) establishes overall policy for the production and promotion of energy from renewable sources in the EU and specifies national renewable energy targets for each country. The Strategic Energy Framework (DETI 2010) states that Northern Ireland will seek to achieve 40% of electricity consumption from renewable sources by 2020. In line with this, the Northern Ireland Executive in their programme for Government, have set a target that by 2015, 20% of all electricity will be generated from renewable sources.

**10.2** For the 12 month period January 2014 to December 2014, 19.0% of total electricity consumption in Northern Ireland was generated from renewable sources located in Northern Ireland. This represents an increase of 1.7 percentage points on the previous 12 month period (January 2013 to December 2013).<sup>7</sup> Therefore continued development of renewable energy resources is vital to facilitating the delivery of international and national commitments on both greenhouse gas emissions and renewable energy.

**10.3** New private forms of renewable energy development are likely to increase in use in the Mid Ulster District over the plan period and will require connection to the electricity network. The Renewable Integration Development Plan (RIDP) was established in 2007. It has reviewed the network capacity

<sup>7</sup> DETI-Statistics on Electricity Consumption and Renewable Generation in Northern Ireland- September 2014



limitations in the north and west of NI and the north west of the Republic of Ireland, against the renewable generation expected to seek connection there by 2020. The level is aligned with the NI and RoI governments' targets to have 40% of electricity from renewable sources.

**10.4** The Northern Ireland Housing Executive (NIHE) is designated as Northern Ireland's only Housing Energy Conservation Authority (HECA). In its 2009 HECA report, the NIHE stated that they were committed to installing a range of renewable energy source across their housing stock. The report stated that they had installed a range of renewable energy installations in their properties and that the most effective of these were wood pellet boilers and photovoltaic solar panels. The main renewable energy installations provided by NIHE are as follows:

- solar water heating panels - 2,032 dwellings
- solar photovoltaic (PV) panels - 32 dwellings
- micro-CHP field trial - 10 dwellings
- ground source heat pump - 1 dwelling
- solar air heating and ventilation systems - 55 dwellings
- wood pellet boilers - 26 dwellings
- wind turbine - 1 dwelling

**10.5** The main sources of renewable energy are the wind, the sun (solar), moving water (hydropower), heat extracted from the air, ground and water (including geothermal energy) and biomass (wood, biodegradable waste and energy crops). The key issues regarding each of these energy sources are discussed below:

**10.6** **Wind-** Electricity generated by onshore windfarms is the most established, large scale source of renewable energy in NI. Of all renewable electricity generated within Northern Ireland over the 12 month period January 2014 to December 2014, 92% was generated from wind.<sup>8</sup> Additional figures supplied by Northern Ireland Electricity (NIE) indicate that when all committed renewable energy generating facilities are connected to the grid, 66.6% of renewable energy generation will be provided by wind energy with the remaining 33.4% being supplied by solar energy (20.7%), Hydropower (2.2%) and Anaerobic Digestion / Biogas (10.5%).<sup>9</sup>

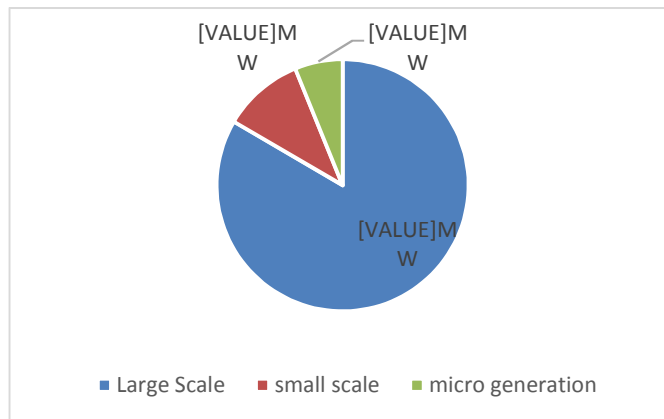
**10.7** The majority of energy derived from wind in Northern Ireland comes from large scale generation as opposed to small scale or micro generation. Large scale generation consists of wind farms whilst small scale or micro generation consist of a range of renewable technologies including single turbines or even micro turbines. At the end of February 2015, 639MW of renewable energy

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<sup>8</sup> DETI-Statistics on Electricity Consumption and Renewable Generation in Northern Ireland- September 2014

<sup>9</sup> Presentation provided by NIE entitled "Renewables – Sub Groups"

was generated from large scale generation with 80MW and 47MW being generated from small scale generation and micro generation respectively.<sup>10</sup> This information is illustrated in the graph below;



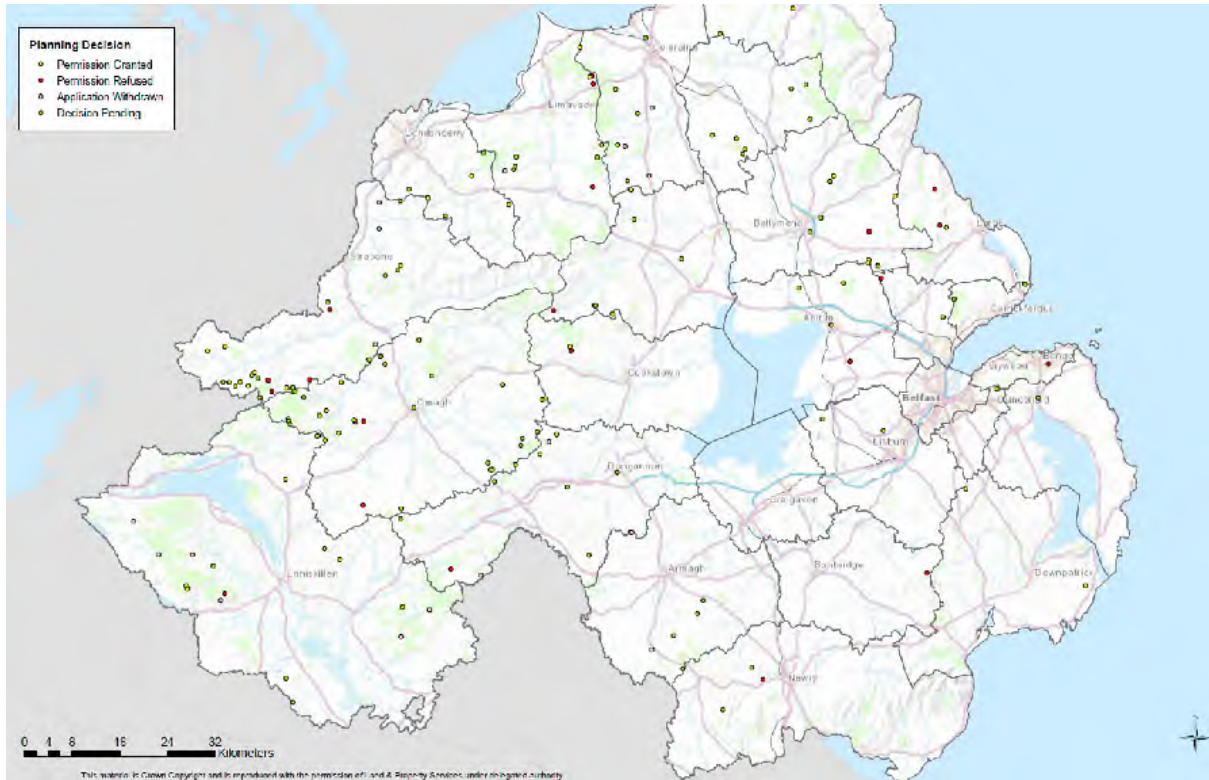
**10.8** At present in the Mid Ulster District there are 10 windfarm installations consisting of more than a single turbine which have received planning permission, another two applications are currently being assessed. When compared to Northern Ireland as a whole, there have been 126 planning approvals for windfarms in Northern Ireland. In relation to single wind turbines, there are 349 approvals for such proposals in Mid Ulster, with 2662 in the whole of Northern Ireland<sup>11</sup>.

**10.9** However public attitude towards wind energy development is changing. The residents of the Mid Ulster District are custodians of some of Northern Ireland's most important landscape areas including the Sperrin Area of Outstanding National Beauty (AONB). There are concerns regarding the proliferation of single turbines and resulting visual intrusion, safety and the increasing size and massing of turbines. The Sperrins Forum is a group aiming to promote recreation and tourism activities within the Sperrin AONB. They have recently submitted a letter of concern regarding the number of wind turbines and wind farms erected and currently being assessed which lie within the AONB. Their concerns include detrimental impact upon the pristine environment, biodiversity and negative impact on the tourism / leisure sectors.

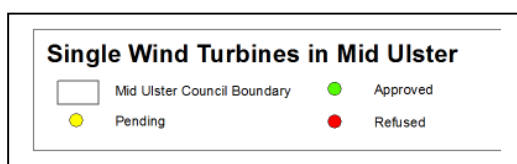
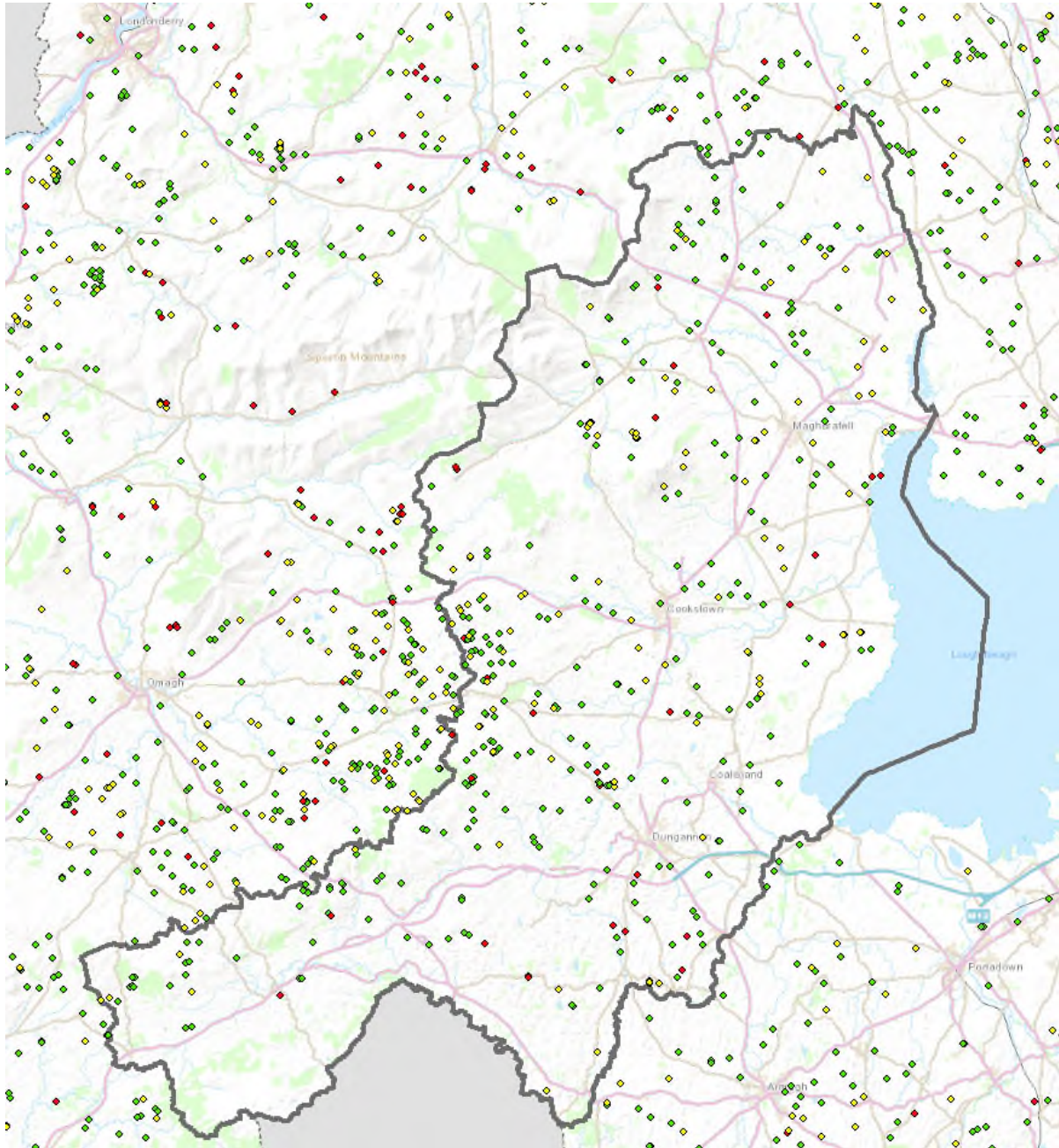
<sup>10</sup> Presentation provided by NIE entitled "Renewables – Sub Groups"

<sup>11</sup> DOE – Renewable Energy Statistics

## Map of approved and pending wind farms in Northern Ireland



## Map of approved and pending single wind turbines in Mid Ulster Area



## **10.10 Options for Council in considering wind energy development:**

Having evaluated the information available in respect of wind energy, the options for the council are to:

1. Adopt policies which are in line with existing planning policy contained within Planning Policy Statement 18 (PPS 18) Renewable Energy and the Best Practice Guidance to PPS18.
2. Develop a more restrictive policy, having regard to concerns relating to impacts on AONBs and sensitive landscapes, bio-diversity and tourism.
3. Adopt a policy position that recognises the value of wind energy development but provides policy which gives greater weight to environmentally sensitive areas and greater protection to neighbouring amenity. Any such policy changes would be brought through the introduction of Countryside Policy Areas.

**10.11** As outlined earlier, Northern Ireland is on course to meet the targets of 40% set out by the Strategic Energy Framework and 20% as set out by the NI Executive. Consequently, a more restrictive policy may hinder the progress made thus far and reverse the positive trends experienced to date. By adopting option 3, the Council would be able to continue to support renewable wind energy development whilst also safeguarding areas which are considered to be of particular scenic value and also reducing potential impacts on neighbouring properties.

**10.12 Sun-** Active solar photovoltaic (PV) technologies generates electricity from daylight. The most common form of device is a solar panel or module typically 0.5 to 1m<sup>2</sup> in size, dark in colour and having low reflective properties. Although roof mounted is most common, modules can be mounted on sides of buildings, or on free standing support structures on the ground. A number of modules are usually connected together in an array to produce the required output, which can vary from a few square metres to several hundred square metres. In most cases involving dwelling houses, providing the building is not listed or in a conservation area and the installation complies with the relevant constraints, PV will be 'permitted development' and a planning application will not be required. Passive Solar Design (PSD) is an environmentally benign approach to ensure that domestic scale buildings capture maximum light and heat from the sun whilst being positioned in the landform to act as a buffer against the worst of the elements. To date, operational planning policy regarding solar power has not raised any particular key issues.

**10.13 Water-** Water flowing from a higher to a lower level drives a turbine which produces mechanical energy. This mechanical energy is usually turned into electrical energy by a generator. There are no large scale hydroelectric schemes in the Mid Ulster District. Hydro developments anticipated will

generally small in scale and subject to design, ecological and fisheries considerations being carefully assessed this type of renewable energy development is unlikely to cause significant concern.

**10.14 Heat-** Ground source heat pumps operate by circulating water (or another fluid) through pipes buried in the ground. The water temperature in the pipes is lower than the surrounding ground and so it warms up slightly. This low grade heat is transferred to a heat pump, which raises the temperature to around 50°C. Water source heat pumps operate in a similar way, with the pipes being submerged in water. Air source heat pumps extract heat in the air and use a fan to draw air over coils that extract energy. Air-source heat pumps can be located in the roof space or on the side of a building. They are similar in appearance to air conditioning boxes. To date, existing operational policy has not raised any significant issues with these types of renewable energy developments subject to careful planning consideration including archaeological implications.

**10.15 Biomass:** Biomass fuels, including wood and energy crops, can be utilised to provide energy either by combustion or fermentation / digestion technologies. There are currently three main categories of biomass plant:

- Plant designed primarily for the production of electricity
- Combined heat and power plant (CHP)
- Plant designed for the production of heat.

**10.16** Emissions and waste products from biomass energy production include airborne emissions, emissions to watercourses and ash. Anaerobic digestion (AD) is a process which bacteria break down organic material in the absence of oxygen to produce a methane rich biogas. This can be combusted to generate electricity. Thermal processes can also be used extract energy from waste. These processes use a high temperature to release the chemical energy in the fuel. Planning issues from these renewable energy developments that require consideration include:

- Visual intrusion-the plant is an industrial feature with a chimney;
- Noise from plant and traffic operations;
- Any effects on health, local ecology or conservation from the plant and air / water borne emissions;
- Traffic to and from the site in order to transport biomass fuel and subsequent by-products.

### **10.17 Options for Council in considering biomass development:**

Having evaluated the information available in respect of biomass development, the options for the council are to:

1. Adopt policies which are in line with existing planning policy within Planning Policy Statement 18 (PPS 18) and the related Best Practice Guidance to PPS18 and within Planning Policy Statement 11 (PPS 11) Planning and Waste Management in the case of biomass from waste.
2. Develop a more restrictive policy, having regard to concerns over environmental impact, visual impact and amenity impact;

**10.18** Given the important of renewable energy development to achieving the NI Strategic Energy Framework target, option 2 would conflict with the regional guidance. By adopting current planning policy the Council would be able to support energy supply and production whilst ensuring potential impacts are minimised.

### **Renewables and Electricity Connection**

**10.19** The electricity network in NI is facing an unprecedented demand for the connection of renewable generation. The total amount of renewable generation already connected to the network is 729MW, with a further 455MW committed to connect. Renewable energy connection is very reliant on the existing infrastructure. However at present the transmission and distribution networks cannot provide, on an unrestricted basis for all of this connected renewable generation.

**10.20** Since the introduction of increased Renewable Obligation Certificate (ROC) incentives for small scale generation in April 2010, there has been a large increase in the amount of small scale generation either connected to, or committed to connect to the 11kV network. NIE have recently produced their latest 11kV network heat map (February 2015) to provide guidance on capability of the 11kV network to accept further small scale generation (see Appendix 1). This heatmap identifies where investment is currently required. This map is a simple visual representation however it displays that in the Mid Ulster District Plan Area locations such as Pomeroy, Ballygawley and Fivemiletown are already at saturation point.

**10.21** The existing energy infrastructure needs to be overhauled to ensure it will be fit for purpose. This includes strengthening the grid and developing smart grid initiatives. The upgrading of the electricity grid will involve more overhead powerlines and power installations. The following table provides details of the various projects presently underway or planned in NI to aid renewables integration into the electricity network:

**Table 7 - Transmission Projects in Northern Ireland for renewables integration**

<p><b><u>Short Term Plan (STP)</u></b> Increasing capacity of existing 110kV network by using Dynamic Line Rating techniques combined with selective up-rating- Work Completed</p>
<p><b><u>Medium Term Plan (MTP)</u></b> Series of individual projects designed to reinforce 110kV network to increase capacity &amp; remove bottlenecks-Work ongoing</p>
<p><b><u>Renewable Integration Development Plan (RIDP) &amp; Network 25</u></b> The RIDP has identified the issues which will arise due to the connection of renewable generation (in the north and west of NI) &amp; in 2013 the project had arrived at a preferred overall scheme option. The scheme involves new extra high voltage, 275 and 110 kV infrastructure and the uprating of some existing circuits. However, phase 4 of the RIDP is now focused on the preparation of a transmission plan for the whole of NI (Network 25) supported by an associated Strategic Environmental Assessment.</p>
<p><b><u>Generation Cluster Infrastructure</u></b> To facilitate the connection of renewable generation to the grid NIE will 'cluster' their arrangements for the connection of generators (generally onshore wind farms) so that generators will share transmission network infrastructure as far as possible. Clustered connections generally involve the construction of a 110/33kV substation, connection to the 110kV network &amp; individual 33kV generation connections. There are to be at least 7 cluster substations developed before 2020.</p>
<p><b><u>North South Interconnector (NSI)</u></b> The proposed interconnector will require the construction of a new 275/400kV substation &amp; a new 400kV overhead line between Turleenan (Dungannon) and Woodlnd (Meath). A planning application, ref O/2009/0792/F, was submitted in December 2009. The Environment Minister referred the application to the Planning Appeals Commission and a Public Inquiry commenced (&amp; was adjourned due to legal challenges brought by objectors) in March 2012. An updated planning application, ref O/2013/0214/F, relating specifically to the works associated with the construction of overhead lines &amp; towers was submitted to DOE in April 2013. Following a period of public consultation, this application has been returned to the PAC for recommencement of the Inquiry. The recommencement date of the Public Inquiry is unknown at this stage.</p>

## 11.0 Natural Gas

- 11.1 At present, Mid Ulster does not have a natural gas supply. Around 170,000 households and 12,000 businesses are connected to a natural gas supply in Northern Ireland<sup>12</sup> but this does not extend to our district.
- 11.2 However, in accordance with its powers under Article 8 of the Gas (Northern Ireland) Order 1996, the Utility Regulator for Northern Ireland has recently awarded licenses to two gas providers who will jointly provide a new supply of natural gas to the west of the country, including the Mid Ulster District. The two companies who will provide the new gas supply are:

<sup>12</sup> [http://www.uregni.gov.uk/gas/market\\_overview/](http://www.uregni.gov.uk/gas/market_overview/)



- i. Mutual Energy (formerly Northern Ireland Energy Holdings)
- ii. Scotia Gas Network (SGN)

These two companies will be the exclusive joint providers of gas to the west. This means that whilst gas will be available in the Mid Ulster District, customers will not be able to choose their provider unlike other areas in the east of the country.

- 11.3** The new scheme has been entitled “Gas to the West” and the main beneficiaries will be the towns of Omagh, Strabane, Enniskillen, Derrylin, Cookstown, Dungannon (including Coalisland) and Magherafelt.

**“Gas to the West”**

- 11.4** It is anticipated that the scheme will be completed by 2016 and that in the years following completion, the number of connection types will grow year on year within the Mid Ulster District.
- 11.5** Gas providers enjoy certain permitted development rights under Class D of Part 14 of the Schedule to the Planning (General Permitted Development) Order (Northern Ireland) 2015. However, any part of the scheme which constitutes development and requires planning permission will be the responsibility of DOE and will not be devolved to the local councils.
- 11.6** As part of their license, the gas providers have drafted a development plan which sets out the numbers of potential new connections which will be secured under the scheme.
- 11.7** The numbers of different types of connections which it is hoped will be secured in the Mid Ulster District are set out in the table below. Detailed target figures as broken down by connection type are only projected up until 2026. It should be remembered that these are target figures and there is no guarantee that these figures will be achieved.
- 11.8** According to these figures, it is hoped that by the year 2026, there will be just over 6,000 connections to the natural gas network in the Mid Ulster District.
- 11.9** It is clear from these planned figures that the main beneficiaries of the new gas supply will be privately owned or rented housing. However, a significant number of businesses, both large and small, will also be supplied with natural gas. It is hoped that this will make the district more attractive to businesses who may wish to establish here. Gas is a cheaper, more efficient fuel and its availability in Mid Ulster will help to address the competitive advantage which natural gas provision has provided to other areas in the east of country.
- 11.10** The provision of natural gas will also contribute to a more diverse and secure supply of energy in line with policy RG5 of the RDS 2035

**Table 8 - Cumulative target figures for new connections to the gas network under the Gas to the West Scheme <sup>13</sup>**

District (historic borough)	Connection Type	Annual cumulative target of new connections per financial year									
		Year	2017	'18	'19	'20	'21	'22	'23	'24	'25
Cookstown	Large / Contract IC <sup>14</sup>	1	3	6	7	7	7	7	7	7	7
	Small / Medium IC <sup>15</sup>	7	28	39	56	72	88	106	122	139	155
	NIHE	32	129	161	193	225	257	270	283	296	309
	Domestic New Build	0	0	36	72	108	144	198	234	270	306
	Domestic owner occupied / private rental	41	164	328	430	533	635	737	840	942	1,045
	<b>TOTAL</b>	<b>61</b>	<b>324</b>	<b>570</b>	<b>758</b>	<b>945</b>	<b>1131</b>	<b>1,318</b>	<b>1,486</b>	<b>1,654</b>	<b>1,822</b>
Dungannon	Large / Contract IC	1	4	11	15	15	15	15	15	15	15
	Small / Medium IC	6	26	37	54	69	85	101	117	132	149
	NIHE	53	214	269	322	375	430	451	472	494	515
	Domestic New Build	0	0	54	125	196	267	338	427	498	569
	Domestic owner occupied / private rental	64	256	512	672	832	992	1,152	1,311	1,472	1,632
	<b>TOTAL</b>	<b>124</b>	<b>500</b>	<b>883</b>	<b>1188</b>	<b>1,487</b>	<b>1789</b>	<b>2,057</b>	<b>2,342</b>	<b>2,611</b>	<b>2,880</b>
Magherafelt	Large / Contract IC	1	1	4	7	7	7	7	7	7	7
	Small / Medium IC	5	21	29	41	54	66	78	91	103	116
	NIHE	23	92	115	138	161	184	193	202	212	221
	Domestic New Build	0	0	22	44	66	100	122	144	177	211
	Domestic owner occupied / private rental	29	118	237	311	385	458	532	606	680	754
	<b>TOTAL</b>	<b>58</b>	<b>232</b>	<b>407</b>	<b>541</b>	<b>673</b>	<b>815</b>	<b>932</b>	<b>1,050</b>	<b>1,179</b>	<b>1,309</b>

<sup>13</sup> Annex 2 Part 3 of Scotia Gas License -

[http://www.uregni.gov.uk/uploads/publications/Scotia\\_Gas\\_Networks\\_Northern\\_Ireland\\_Ltd\\_Grant.pdf](http://www.uregni.gov.uk/uploads/publications/Scotia_Gas_Networks_Northern_Ireland_Ltd_Grant.pdf)

<sup>14</sup> a connection for a non domestic premises which is anticipated to produce 732,500 KW hours per year

<sup>15</sup> a connection for a non domestic premises which is anticipated to produce more than 73,250KW hours per year but less than 732,500 KW hours per year

## **Gas Network**

**11.11** It is proposed that the Mid Ulster District will be supplied by extending the existing North / South pipeline from Portadown to Cookstown and Dungannon with an additional feeder pipeline providing supply to Magherafelt

**11.12** The potential new routes for the proposed gas lines are shown on the map below;<sup>16</sup>



## **12.0 Cemetery Provision**

**12.1** The majority of cemeteries in the District are provided by local churches of various denominations.

**12.2** However, public cemeteries are also provided and maintained by the local council. Information supplied by the former councils would indicate that the public cemeteries in the old Magherafelt and Dungannon districts will be capable of coping with demand throughout the fifteen year plan period. Additional land will be needed during the plan period to allow for cemetery provision in the Cookstown area.

<sup>16</sup> DETI website – Gas to the West section

- 12.3** Polepatrick cemetery near Magherafelt currently has around 2800 unused grave spaces. The current burial rate is approximately 10-15 per year which means there should be more than adequate provision in this plan period.
- 12.4** Cemeteries at Coolhill and Drumcoo in Dungannon are currently closed and have no further plots for sale; although around 10-15 burials a year still take place at these cemeteries in the form of “re openings” of existing family plots.
- 12.5** The predecessor council have indicated that the existing Cottagequin cemetery currently has 791 plots available and that the uptake on these plots is around 25 per year. In addition to the 791 plots, land is also available for a further 2000 plots at the Cottagequin site should the need arise.
- 12.6** In the Cookstown area, there is one council maintained cemetery at Forthill Park. There are approximately 100 burials per year at this cemetery and current availability is approximately 900 plots. Consequently, the Forthill Park Cemetery has a capacity of approximately 9-10 years and will not suffice for the incoming plan period.
- 12.7** There is additional land within the boundary of Forthill Cemetery which could potentially be utilised for future cemetery provision. The Forthill Cemetery site is currently zoned as Local Landscape Policy Area (LLPA) in the CAP 2010 and only development which is ancillary to the cemetery will be acceptable.
- 12.8** The council also owns land at Cabin Wood, off the Tullywiggan Road which was purchased for the purpose of future cemetery provision.
- 12.9** Table 18 below shows the capacity of existing public cemeteries in the Mid Ulster District.

**Table 9 – Current capacity of cemeteries in Mid Ulster District for the plan period.**

<b>SITE</b>	<b>CAPACITY</b>	<b>CURRENT BURIAL RATE per YEAR</b>	<b>CAPACITY FOR PLAN PERIOD</b>	<b>ADDITIONAL LAND REQUIRED?</b>
<b>POLEPATRICK, MAGHERAFELT</b>	2800	10-15	YES	NO
<b>COTTAGEQUIN, DUNGANNON</b>	791	25	YES	NO
<b>FORTHILL PARK, COOKSTOWN</b>	900	100	NO	YES

- 12.10** The Council may wish to zone land in Cookstown to allow for the required provision of additional space needed for future cemetery provision. Alternatively, the council may decide not to zone land but to allow any application for such development to be assessed on its own merits against existing planning practices. Currently, policy LLPA 2 of the CAP 2010 would allow for existing land within the cemetery site to be used for additional grave provision.
- 12.11** When planning for new cemetery provision it is important to consider the impact such development will have on the groundwater supply at the site in question. Cemetery development can lead to groundwater becoming contaminated and this is particularly important if there is a groundwater or surface water fed drinking water source in the locality.
- 12.12** Proposals to zone land for future cemetery development should be considered in liaison with NIEA Water Management Unit. In considering such proposals consideration should be given to the following documents;
- Planning Guidance Note: Cemeteries. A Guidance Note for Planning Officers and Applicants Seeking Planning Permission for New Cemeteries and Extensions to Existing Cemeteries;
  - Pollution Prevention Guidelines (PPG's), namely PPG 1, 4 & 5;
  - Cemeteries, Burials and the Water Environment, A Guidance Note.

## **13.0 Conclusions**

- 13.1** This paper has provided an overview of utility provision within Mid Ulster and has looked the existing provision and spare capacity of public utilities over the plan period until 2030. Utility provision in the Local Development Plan must take account of the regional planning framework set out by the Regional Development Strategy 2035 and the draft SPPS to assist judgements on the allocation of housing growth and to ensure that sufficient land is allocated to meet the anticipated needs of the community. The provision of public utilities within the plan area is primarily the responsibility of a number of government Departments and statutory bodies as well as the District Councils, however the private sector is playing an increasingly important role. In terms of the role of the LDP it is therefore important to recognise that external providers have their own long term strategies and investment plans subject to budget constraint.
- 13.2** The LDP will not designate or zone specific sites for public utilities. However in accordance with regional and operational planning policy it will seek to locate new developments which maximise the efficient use of existing utility infrastructure whilst keeping the environmental impact to a minimum.

- 13.3** Where proposals to develop new or replace existing public utilities are known, these should be identified in the Plan. Where provision of an existing public utilities is limited and there are no known plans to upgrade during the plan period, development may be constrained as a result of this. As explained at the outset of this paper no information has been received from NI WATER in relation to the capacity of existing Waste Water Treatment Works (WWTW's) in the various settlements across the district.
- 13.4** Thus the key elements of any strategy relating to the following themes are identified as follows:

### **Telecommunications**

- Develop an approach which promotes the development of telecommunications infrastructure whilst also paying close attention to the impact such development will have. This may mean for example, that certain areas are designated at local policies plan stage as areas where no telecommunications development will be permitted in order to protect sensitive landscapes, provided there is not a recognised 'Not Spot' at that location i.e. no telecommunication coverage at all. Any such policy changes would be brought through the introduction of Countryside Policy Areas.

### **Recycling and Waste Management**

- Facilitate the implementation of the Waste Management Plan when formulating Plan Strategy and Local Policies Plan.

### **Flood Risk, Drainage and Water Supply**

- Ensure that development land is zoned in areas where the "headroom capacity" of existing Waste Water Treatment Works is such that development can be supported by sewerage infrastructure.
- Avoid zoning land for habitable development in or close to existing WWTS's.
- Local development plans should be compatible with and compliment the Flood Risk Management Plans which will be published by DARD at the end of 2015.
- Avoid zoning land for habitable development which has been identified as being at risk of flooding, either on the Strategic / Hazard / Climate Change Flood Maps.
- Formulate planning policy which makes drainage a key element of design and which promotes the use of SuDS.

## **Energy Supply and Renewables**

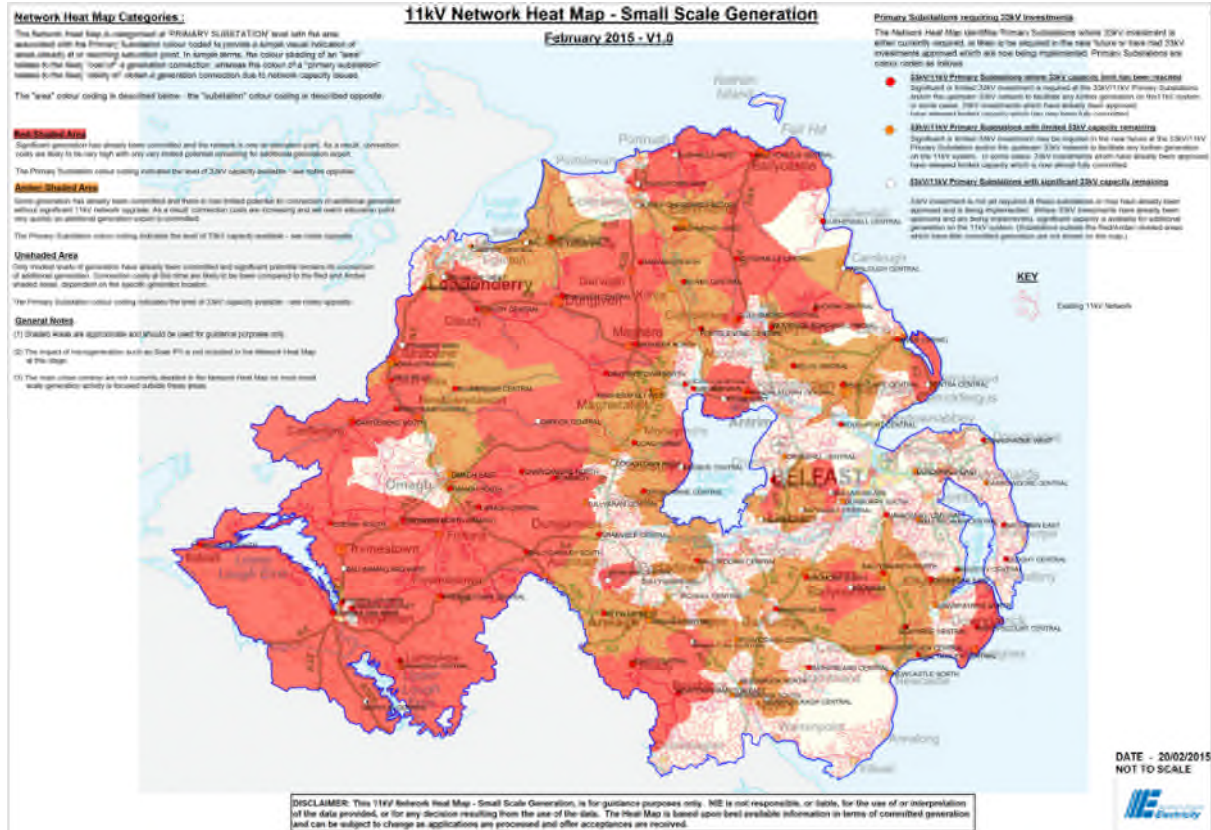
- Adopt a policy position that recognises the value of wind energy development but provides policy which gives greater weight to environmentally sensitive areas and greater protection to neighbouring amenity. Any such policy changes would be brought through the introduction of Countryside Policy Areas.
- In relation to biomass development, adoption of current planning policy would ensure continued support for such development while ensuring potential impacts are minimised.
- Develop a policy for achieving gains, where possible, for local settlements affected by proposals for commercial energy production.

**14.6** The information in this paper will be updated upon receipt of the required information from NI Water.

# APPENDICES

## Appendix 1

### Heat Map showing capacity of the 11KV network across Northern Ireland





## **Appendix 2**

### **Existing WWTW capacity in Magherafelt District**

<b>SETTLEMENT</b>	<b>WWTW STATUS (as per MAP 2015)</b>
BALLYMAGUIGAN	WWTW in place but no further capacity during plan period
BALLYNESE	No WWTW available
BELLAGHY	WWTW available to allow for proposed development in plan period
CASTLEDAWSON	WWTW available to allow for proposed development in plan period
CLADY	WWTW available to allow for proposed development in plan period
CREAGH	WWTW available to allow for proposed development in plan period
CULNADY	WWTW available to allow for proposed development in plan period
CURRAN	WWTW update scheduled 2011-2013
DESERTMARTIN	WWTW in place but no further capacity during plan period
DRAPERSTOWN	WWTW available to allow for proposed development in plan period
GLEN	WWTW available to allow for proposed development in plan period
GLENONE	WWTW available to allow for proposed development in plan period
GRACEFILED	No WWTW available
GULLADUFF	WWTW update scheduled 2011-2013
INISHRUSH	WWTW available to allow for proposed development in plan period
KILROSS	WWTW available to allow for proposed development in plan period
KNOCKLOUGHRIM	WWTW in place but no further capacity during plan period
LONGFIELD	WWTW upgrade scheduled March 2012
MAGHERA	WWTW available to allow for proposed development in plan period
MAGHERAFELT	WWTW available to allow for proposed development in plan period
MONEYNEANY	WWTW available to allow for proposed development in plan period
STRAW	WWTW available to allow for proposed development in plan period
SWATRAGH	WWTW update scheduled 2011-2013
TAMLAGHT	WWTW available to allow for proposed development in plan period
TOBERMORE	WWTW available to allow for proposed development in plan period
THE WOODS	WWTW in place but no further capacity during plan period
UPPERLANDS	WWTW available to allow for proposed development in plan period

### **Appendix 3**

Table (a) – Summary of areas in settlements within the historic Cookstown District Borough which have a 1% chance of flooding in any given calendar year.

SETTLEMENTS IN COOKSTOWN DISTRICT	AREA OF FLOOD RISK
DISTRICT TOWN	
Cookstown	<ul style="list-style-type: none"> <li>a) Land at the north of the settlement, roughly running eastwards from southern end of area of scrub opposite Lisccole, across Lissan Road to junction of Coolreaghs Road and Claggan Lane</li> <li>b) Land at south of settlement to the east of Chapel Street, south of Fountain Road and to the West of Loran Way.</li> <li>c) Land at south of settlement, to the south of Holy Trinity School, immediately west of Chapel Street and East of Rathbeg.</li> <li>d) Land along the bank of the Ballinderry River to the south and west of the settlement.</li> </ul>
OTHER SETTLEMENTS	
Ardboe	None
Ardtree	None
Ballinderry	To at the north of the settlement on north and south banks of the Ballinderry River
Ballylifford	None
Ballyronan	Land immediately south of the Marina, and east of the junction of Ballyneill Road and Shore Road. Extending southwards along banks of existing watercourse
Churchtown	None
Coagh	Land on both banks of the Ballinderry River, running northwards along western edge of settlement adjacent to Urban Road.
Desertcreat	Land on the eastern bank of the Killymoon river to the north and west of the settlement.
Donaghey	None
Drapersfield	Land on banks of the Ballinderry River to the south of the settlement including football / rugby pitch and existing factory.
Drumullan	<ul style="list-style-type: none"> <li>a) Within settlement – land to north west of junction of Moneyhaw Road and Littlebridge Road.</li> <li>b) Significant flood plains immediately outside settlement limits to south east, north west and north east.</li> </ul>

Dunnamore	Land on banks of Ballinderry River at western end of the settlement
Dunman	Land along bank of Lissan Water, in the grounds of existing Dale Farm factory and land on eastern banks of Lissan Water adjacent to Lismoney Road.
Gortaclady	Minor flood risk on northern bank of the existing watercourse to the north of the settlement.
Grange	None
Kileenan	Minor flood risk on banks of existing watercourse to north of settlement
Money more	<ul style="list-style-type: none"> <li>a) Lands at Turnaface Road on banks of Ballymully River, adjacent to Millrace housing development</li> <li>b) Lands at Turnaface Road and Ministers Walk on banks of Ballymully River, currently an area of open space</li> <li>c) Land on eastern bank of small watercourse, immediately east of existing care home at Cookstown Road</li> <li>d) Land at southern end of settlement, to the north of Ballymully River. Adjacent to Riverbrook housing development and consisting of open space and recreational facilities.</li> <li>e) Land to north east of junction of Market Street and Circular Road</li> <li>f) Land to rear of existing houses on western side of Circular Road and extending between Conyngham street and Hammond Street</li> <li>g) Land to south of Hammond Street, adjacent to existing laneway which serves WWTW.</li> <li>h) Land immediately south of settlement limit on southern boundary of Ballymully River at Springvale housing development and Elm Park housing development. Land at Elm Park extending northwards to Cookstown Road is currently protected by flood defence.</li> <li>i) Large swathes of land immediately south of the settlement limit along Ballymully River.</li> </ul>
Moortown	None
Orritor	Minor flood risk at the north east boundary of the settlement
Pomeroy	Minor flood risk at the north of the settlement on Loughbracken Road
Sandholes	None

Stewartstown	None
The Loup	None
The Rock	Lands along the existing watercourse at the north of the Settlement, immediately north of Sacred Heart RC Church and to the west of Tullydonnell Road
Tullyhogue	None

Table (b) – Summary of areas in settlements within the historic Magherafelt District Borough which have a 1% chance of flooding in any given calendar year.

SETTLEMENTS IN MAGHERAFELT DISTRICT	AREA OF FLOOD RISK
DISTRICT TOWN	
Magherafelt	<ul style="list-style-type: none"> <li>a) Land at the north of the settlement at Station Road industrial site.</li> <li>b) Land immediately outside the settlement limit to the east of Station Road industrial site.</li> <li>c) Land at the north of the settlement at the Brambles housing development and at Deramore Park housing development.</li> <li>d) Land at north east of the settlement at site of Sperrin Integrated College.</li> <li>e) Land at the east of the settlement, immediately east of the Sandy Grove housing development adjacent to the existing watercourse.</li> <li>f) Land at south east of settlement adjacent to watercourse immediately east of existing industrial site (Acheson Glover)</li> <li>g) Land at south of settlement on both sides of Ballyronan Road between the council offices and Meadowbank playing fields. Also extending to existing housing development at Meadowbank Drive and Hazelbrook.</li> <li>h) Land at Princess Drive, Greenvale Leisure Centre and Magherafelt High School</li> <li>i) Land immediately west of Meadowbank Shopping Centre extending along Westland Road and Glenbank Park to Rained Street</li> <li>j) Land at Rainey Endowed School and associated playing fields</li> </ul>
OTHER SETTLEMENTS	
Ballymaguigan	None
Ballynease	Minor flood risk at north western edge of settlement
Bellaghy	Minor area of flood risk running north- south through settlement, adjacent to watercourse
Castledawson	Flood risk on both banks of Moyola River which runs

	<p>southward through the settlement.</p> <p>Significant areas of flood risk immediately outside the settlement limit at south east and north west</p>
Clady	Minor flood risk at watercourse on northern boundary of settlement.
Creagh	<p>Area of flood risk in south west of settlement limit.</p> <p>Large flood risk area immediately south east of settlement limit</p>
Culnady	Flood risk at eastern part of settlement
Curran	Area of flood risk in western part of settlement and large risk area immediately west of the settlement.
Desertmatin	Minor risk at southern edge of settlement
Draperstown	Minor area of risk along watercourse running through settlement
Glen	Area of flood risk along existing watercourse at Ballyknock road, south of St. Lurach's Gardens.
Glenone	Significant flood risk at north of settlement on south west banks of River Ban taking in Orchard Close / Orchard Way and significant area of flood risk immediately east of the settlement limit on western banks of the River Bann.
Gracefield	None
Gulladuff	None
Inishrush	Minor area of flood risk to east of settlement.
Kilross	None
Knockloughrim	None
Longfield	Minor flood risk at watercourse to south of settlement limit
Maghera	<ul style="list-style-type: none"> <li>a) Land in use as business park at Station Road</li> <li>b) Land at east of settlement at Mullagh Park / Lane</li> <li>c) Area to south of settlement limit at junction between tobermore road and Glenshane Road, consisting of area of existing industry and area of open space.</li> <li>d) Area to west of settlement, to the south of Glen Road consisting of existing industry.</li> <li>e) Area to northwest of settlement, to the south of junction between Tirkane Road and Crawfordsburn Drive.</li> <li>f) Significant flood risk at land immediately south of the settlement limit at Glenshane Road.</li> </ul>
Moneyneaney	Minor flood risk on banks of watercourse running through centre of settlement.
Straw	Area to west of settlement at Whitewater Court
Swatragh	Minor flood risk where watercourse crosses Main Street to the South of the settlement.
Tamlaght	None
Tobermore	<ul style="list-style-type: none"> <li>a) Land to north of Loughhill Park housing development in area of existing open space.</li> <li>b) Land to south west of Magherafelt Road</li> </ul>

	<p>zoned for housing; TE 03/02 in existing MAP 2015 area plan.</p> <p>c) Land to south of settlement on Desertmartin Road at Beech Hill Court</p> <p>d) Land immediately south of the settlement limit to the west of Desertmartin Road</p> <p>e) Land running parallel to and south of Main Street, to north of Hazel Grove.</p> <p>f) Large area flood risk, immediately north east of settlement limit.</p>
The Woods	None
Upperlands	Area of land in centre of settlement including old mill buildings and retail / business units

Table (c) – Summary of areas in settlements within the historic Dungannon and South Tyrone District Borough which have a 1% chance of flooding in any given calendar year.

SETTLEMENTS IN DUNGANNON SOUTH TYRONE BOROUGH	AREA OF FLOOD RISK
DISTRICT TOWN	
Dungannon	<p>a) Land at north west boundary of settlement limit to the north of Foxborough housing development and including some land which is zoned for phase 2 housing (DH 28 in DSTAP)</p> <p>b) Land immediately east of Dalriada Park (Quarry Lane) and at the junction of Quarry Lane and Mullaghmore Road</p> <p>c) Land at Newell Road, to north west of Newell Stores and south of Lisnahull Road. Currently zoned for Industry and business (DI 05 in DSTAP)</p> <p>d) Land at Dungannon Park, zoned as existing recreation and open space</p>
OTHER SETTLEMENTS	
Aghaginduff /Cabragh	Minor flood risk on eastern boundary along existing watercourse.
Annaghmore	Land within northern part of settlement limit and immediately north of settlement limit.
Augher	Land at north and east of settlement along banks of River Blackwater.
Aughnacloy	Land associated with Ballygawley Water to south of settlement at Monaghan Road and moving northwards into settlement between Moore Street and Sydney Street.
Ballygawley	Minor flood risk on eastern boundary of settlement on banks of Ballygawley Water.
Ballynakilly	None
Benburb	None
Brockagh / Mountjoy	Land at junction of Ballybeg Road and Mountjoy Road, running

	south east along Duckingstool River.
Caledon	None
Cappagh	None
Carland	Land to south of settlement at Carland Bridge on banks of Torrent River.
Carnteel	None
Castlecaulfield	Land on both sides of Torrent River, running through south of the settlement.
Clogher	<ul style="list-style-type: none"> <li>a) Land at the south west of settlement, immediately west of the junction of Fintona Road and Ballagh Road.</li> <li>b) Land at the east of the settlement, between Old Monaghan Road and Rosies Lane, close to and partly including Richmond Drive</li> <li>c) Land immediately north east of Old Monaghan Road close to junction with main A4 along banks of Fury River.</li> </ul>
Coalisland	<ul style="list-style-type: none"> <li>a) Land adjacent to the Historic Waterway running through the middle of the settlement, to the north of Maplebrook Way and Mourne Crescent.</li> <li>b) Land to the south of the settlement on banks of the Torrent River and including part of Regents Court housing development.</li> <li>c) Land immediately west of Stewartstown Road to the north of junction with Annagher Road.</li> <li>d) Land at the Brambles housing development</li> <li>e) Land to east of settlement on Washing Bay Road, currently zoned for housing (CH12 of DSTAP 2010).</li> </ul>
Dernagh / Clonoe	To north west of the settlement including land in Clondallion housing development.
Donaghmore	<ul style="list-style-type: none"> <li>a) At north west of settlement to the south of Backford Bridge (junction of Pomery, Garvagh and Gortnagola roads)</li> <li>b) To north of settlement, land to south of Garvagh Road</li> <li>c) Land to south of settlement, immediately east of Castlecaulfield road.</li> </ul>
Dyan	Small areas of land on banks of existing watercourse to south of settlement.
Edendork	None
Eglishe	<ul style="list-style-type: none"> <li>a) To south of settlement, adjacent to junction of Stiloga Road, to south of St Patricks RC Church</li> <li>b) Opposite the junction of Kilyliss Road, between Eglishe Road and Beechville Heights</li> <li>c) At north of settlement, adjacent to Eglishe Road opposite existing business premises.</li> </ul>
Fivemiletown	None
Galbally	None
Granville	Small area of land to south and west of the settlement opposite existing business park.
Killeen	None
Killyman	Small area of land to west of the settlement on banks of existing watercourse.
Moy	<ul style="list-style-type: none"> <li>a) Area of land at the south of the settlement adjacent to Benburb Road, close to and including existing area of recreation and open space.</li> <li>b) Land at eastern edge of settlement immediately north</li> </ul>

	east of Charlemont Street
Newmills	Area in middle of settlement along the banks of the Torrent River
Tamnamore	Area to south and east of settlement, immediately south east of M1 motorway
The Bush	None
Tullyallen	None



