Strategic Environmental Assessment of the North West Region Waste Management Group Waste Management Plan Review 2013 - 2020

Environmental Report

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INTRODUCTION

The North West Region Waste Management Group (NWRWMG) works on behalf of the 7 member councils in the north western region of Northern Ireland to guide, support and help them meet their legal requirements and drive forward innovative waste management programmes. The NWRWMG are responsible for carrying out the Strategic Environmental Assessment (SEA) of the Review of the Waste Management Plan 2006 – 2020. The revised NWRWMG Waste Management Plan (WMP) covers the period 2013 – 2020 and covers the Northern Ireland Local Authorities listed below:

- Ballymoney Borough Council
- Coleraine Borough Council
- Derry City Council
- Limavady Borough Council
- Magherafelt District Council
- Moyle District Council
- Strabane District Council

METHODOLOGY AND CONSULTATION

This Environmental Report contains the findings of the assessment of the likely significant effects on the environment of the proposed WMP. The report reflects the requirements of the SEA Directive (2001/42/EC) on the assessment of the effect of certain plans and programmes on the environment and also the transposed regulations in Northern Ireland (S.R. 280/2004).

Integration of the SEA and Draft WMP was achieved through close involvement of relevant team members in all stages of the project through meetings and workshops.

Consultation was carried out with the statutory consultees (Northern Ireland Environment Agency) and with other relevant non-statutory stakeholders. Taking into consideration the feedback from these consultees a broad assessment of the potential for the Plan to influence the environment has been carried out. All the environmental topics listed in the SEA Directive have been scoped in for the assessment of the Plan, which are as follows:

- Air and Climate
- Biodiversity, Flora and Fauna
- Cultural, Architectural and Archaeological Heritage
- Human Health
- Landscape
- Material Assets
- Population
- Soils and Geology
- Water

The NWRWMG Waste WMP is a regional Plan that has the potential to have effects on a regional scale. The main scientific assessments have been limited to within the NWRWMG local authority areas. In line with the SEA Directive, short, medium and long-term impacts have been considered during the assessment.

DESCRIPTION OF THE PLAN

The NWRWMG WMP 2013-2020 is a review of the previous NWRWMG WMP from 2006. This revised Plan sets to continue the progress of waste management within the NWRWMG region of Northern Ireland in meeting the requirements from European EU Directives, UK wide legislation and National legislation to Prevent waste generation, Prepare for material reuse, Recycle materials, Recover materials and as a last resort Dispose of material.

Waste streams considered in the review of the plan include Local Authority Collected Municipal Wastes, Commercial and Industrial wastes, Construction, Demolition and Excavation wastes, Packaging wastes, Agricultural wastes, Hazardous wastes, Priority and other controlled waste streams. However, the Plan only considers the future management of Local Authority Collected Municipal Wastes, as all other waste streams are not the responsibility of the NWRWMG and therefore do not come under the remit of this Waste Management Plan.

The EU Waste Framework Directive and the Waste and Contaminated Land (Northern Ireland) Order, 1997 requires each District Council to prepare Waste Management Plans including the arrangements for managing controlled waste arisings, which must be reviewed at least every 6 years. The review that is currently taking place is in fulfilment of this requirement.

This is the second Draft of the NWRWMG WMP 2013 – 2020 to undergo Strategic Environmental Assessment, as there have been amendments to the alternatives available to the Plan.

ENVIRONMENTAL BASELINE

Baseline environmental information was gathered under each of the following SEA topics at a strategic level to outline the main environmental issues in the area and the potential features that could be impacted by implementing the Waste Management Plan. The main topics for which baseline information was gathered are:

- Biodiversity, Flora and Fauna
- Population and Human Health
- Water
- Air and Climate
- Cultural Heritage, including Architectural and Archaeological Heritage
- Landscape
- Material Assets
- Soils, Geology and Land Use

In addition, the evolution of the environment in the absence of the Plan has been examined. As the Plan has been adopted previously in 2002 and reviewed in 2006 the evolution of the environment in the absence of the Plan cannot be completely assessed, as the proposed waste management measures have been implemented or are being implemented. If the current Plan revision (2013 -

2020) were not to be implemented there is the potential for the stalling of waste management activities and the danger of the NWRWMG councils not meeting their recycling and recovery rates for Local Authority Collected Municipal Waste.

By not implementing the third review of WMP there are unlikely to be significant impacts upon biodiversity, flora and fauna, water, air and climate, heritage, landscape, soils and landuse. Impacts are thought to be unlikely as the previous incarnations of the Plan are already adopted and the measures are being implemented. The current Plan (2013 - 2020) is offering methods for continuation of existing measures, and the implementation of the previously assessed measures.

REVIEW OF RELEVANT PLANS, PROGRAMMES AND POLICIES

A review of the Plans, Policies and Programmes relevant to the WMP was carried out at International, European, National, Regional and Local scales. This exercise was carried out with a view to establishing the hierarchical position of the WMP, the influence these Plans and Programmes will have on the WMP and how the Plan will interact with the objectives of these other Plans.

ENVIRONMENTAL OBJECTIVES, TARGETS AND INDICATORS

Environmental Objectives, Targets and Indicators were developed for the SEA and reflect the nature of the WMP. SEA objectives will be used to test the environmental effects of the Plan and to compare the effects of the alternatives.

The Objectives and Targets are intended to give a high level of protection for the environment in implementing the Plan. The Objectives developed were as follows:

Objective 1 – Biodiversity, Flora and Fauna – To reduce the environmental impacts;
Objective 2 – Population – To provide opportunities for participation through recycling and composting schemes;
Objective 3 – Human Health – To reduce risks to health;
Objective 4 – Soils – To reduce the environmental impacts - soils;
Objective 5 – Water – To reduce the environmental impacts – groundwater and surface water;
Objective 6 – Air (including Noise) – To reduce the environmental impacts – air pollution and noise;
Objective 7 – Climatic Factors – To reduce greenhouse gas emissions and adapt to potential climatic change;
Objective 8 – Material Assets – Provide sustainable waste management solutions for the NWRWMG region;
Objective 9 - Cultural Heritage (inc. Architectural and Archaeological) – To reduce the environmental impacts on the historic environment and cultural heritage; and
Objective 10 – Landscape – To reduce the environmental impacts on landscape.

ALTERNATIVES

There are four main Alternatives available to this Plan, which are summarised as follows:

Alternative 1 – This is the "Do Nothing" alternative, whereas this review of the WMP is not implemented and the WMP (2006) remains as the Plan guiding the waste management activities of the constituent councils up to 2020.

Alternative 2 – This alternative is to implement the **Waste Prevention** measures. This will be assessed as one overall measure that implements the waste prevention initiatives, as set out in the Waste Prevention Plan, and continues to deliver sustained education and awareness of waste prevention such as the supply of home composting units.

Alternative 3 – This alternative is to implement the **Material Recovery - Recycling and Composting** measures. This will be assessed as one overall measure that continues (or expands as appropriate) the kerbside collection of compostable materials and mixed dry recyclables, continues to maintain or procures suitable contracts and implements the enhancement of household waste recycling centres as appropriate.

Alternative 4 – This alternative is to implement the **Residual Waste Treatment and Energy Recovery** measures. This will be assessed as one overall Residual Waste Treatment measure that implements the contracts for the procurement, delivery and operation of residual waste treatment for the NWRWMG.

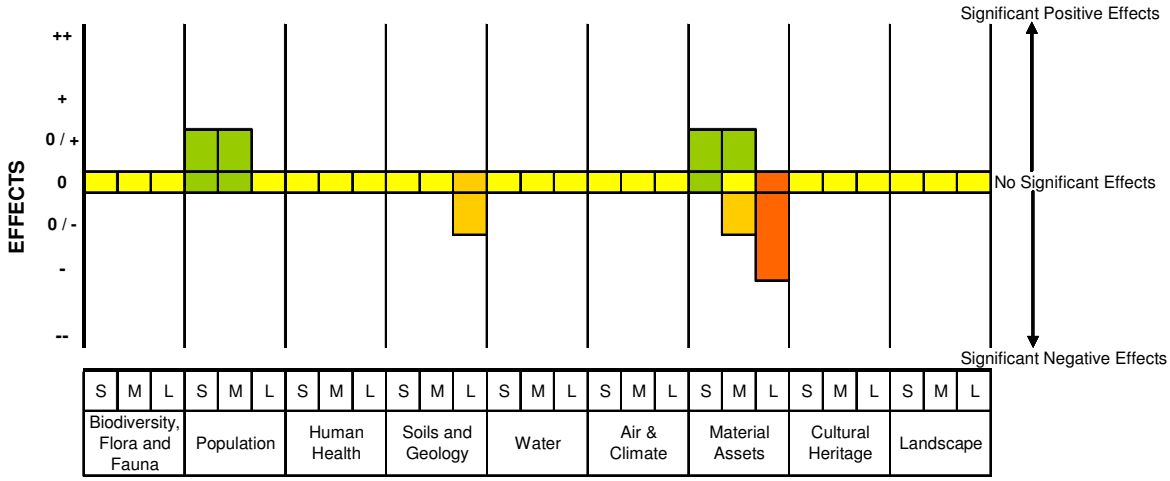
ASSESSMENT

The assessments were carried out by environmental baseline categories and were assessed to give the positive and negative effects, their significance and permanence, any secondary, cumulative or synergistic effects, and any inter-relationship of effects. Each Alternative was given an impact summary table to provide a summary visual representation of the scale of potential positive and negative effects, as shown below:

Alternative 1 – Do Nothing Option

By not implementing the NWRWMG WMP 2013 – 2020 is only likely to have significant negative environmental impacts on material assets in the long term, whereas the previous Plan may not provide sufficient material recovery and recycling to meet the new targets. It should also be noted that not implementing the WMP will also mean not implementing a Plan that has been assessed by an SEA and the environmental objectives, mitigation measures and monitoring proposals from the SEA will not be incorporated into the future tracking of the environmental impacts and progress of the Plan. Any future assessment of Plan progress will therefore still be relying solely on data on waste prevention and material reuse, recovery, recycling and disposal, and not any impacts on the wider environment. A summary figure of the impacts, and their significance, of not implementing the Plan is given below in **Figure 1**.

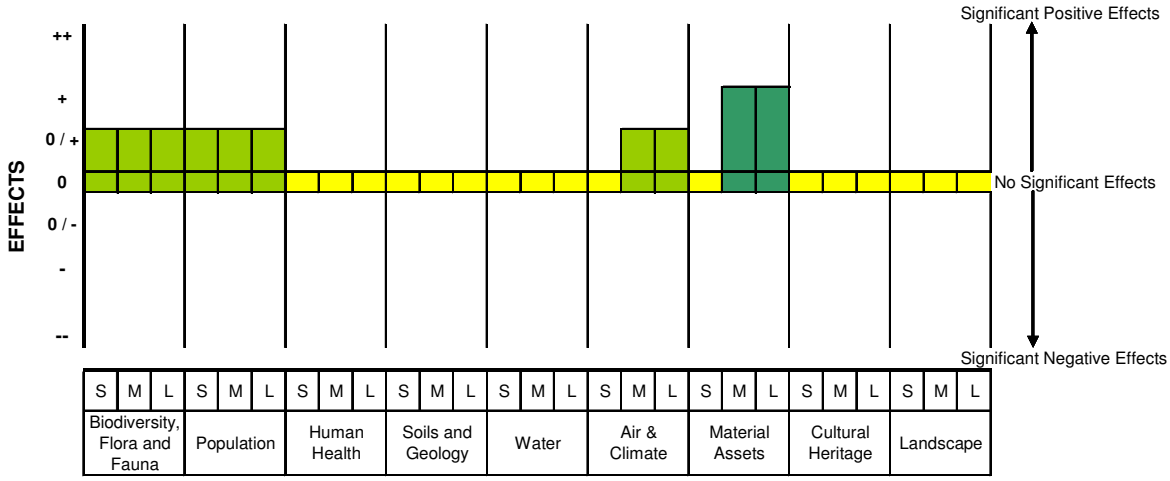
Figure 1: Assessment Alternative 1 – Do Nothing



Alternative 2 – Waste Prevention

The implementation of the Waste Prevention measures may provide slight positive impacts on a local or regional scale on biodiversity, flora, fauna, population, air and climate, and moderate positive impacts on material assets. A summary of the assessment for Alternative 2 is given in **Figure 2**.

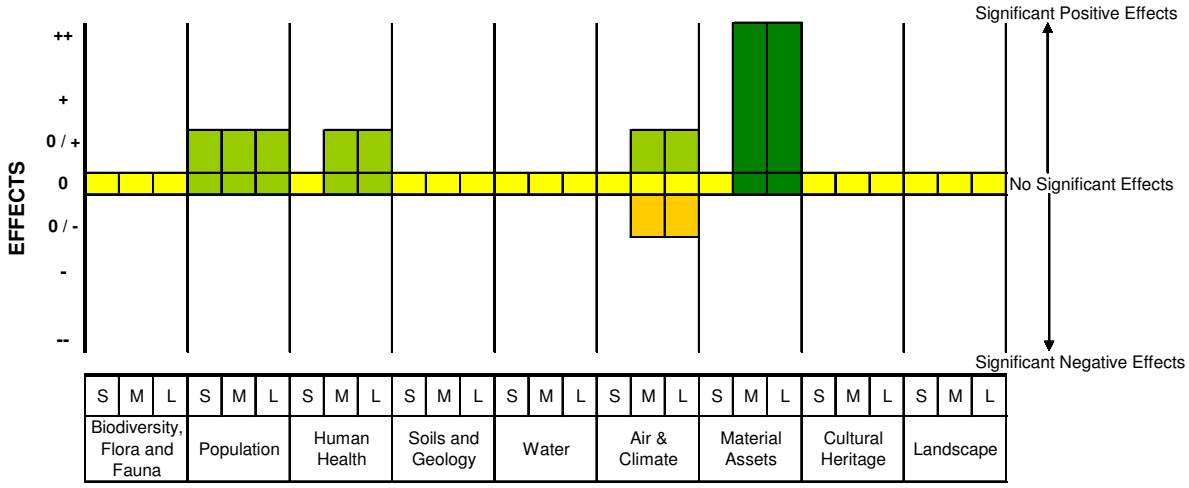
Figure 2: Assessment Alternative 2 – Waste Prevention



Alternative 3 – Material Recovery - Recycling and Composting

The implementation of the Material Recovery measures may provide slight positive impacts on a local or regional scale on population, human health, air and climate, and significant positive impacts on material assets. The implementation of the measure however also has the potential for slight negative impacts on air from emissions. A summary of the assessment for Alternative 3 is given in **Figure 3**.

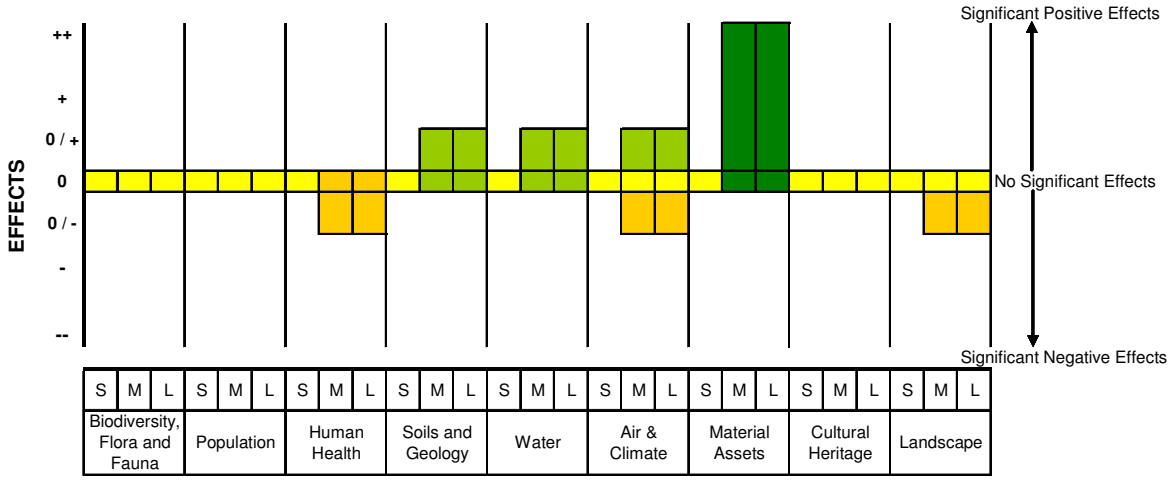
Figure 3: Assessment Alternative 3 – Material Recovery - Recycling and Composting



Alternative 4 – Residual Waste Treatment

The implementation of the Residual Waste Treatment measure may provide slight positive impacts on soils and geology, water, air and climate. The measure has the potential to provide significant positive impacts on material assets, as there is will be greater recovery of materials and less disposal to landfill. The measure however has the potential for slight negative impacts on human health, air and landscape. All impacts are in the medium and long term as there is unlikely to be any significant implementation of this measure in the immediate short term. A summary of the assessment for Alternative 4 is given in **Figure 4**.

Figure 4: Assessment Alternative 4 – Residual Waste Treatment



MITIGATION AND MONITORING

A number of mitigation measures for potential impacts of implementing the Plan with the available Alternatives have been established.

Article 10 of the SEA Directive requires that monitoring be carried out to identify at an early stage any unforeseen adverse effects due to implementation of the Plan. Monitoring will focus on aspects of the environment that are likely to be significantly impacted by the Plan. Where possible, indicators have been chosen based on the availability of the necessary information and the degree to which the data will allow the target to be linked directly with the implementation of the Plan. The proposed monitoring programme will be carried out as the Plan is implemented.

NEXT STEPS

The next step in the SEA and Plan process will be a consultation period, whereas the Plan and SEA will be assessed by the NIEA and a consultation exercise will commence. Comments on this revised Plan and SEA are welcomed throughout this period, so that improvements can be made to the Plan or environmental assessments.

1 INTRODUCTION

1.1 NWRWMG

The North West Region Waste Management Group (NWRWMG) is one of three waste management groups in Northern Ireland, representing 7 councils in the north west of the Province (the other two groups cover the south west and eastern regions of Northern Ireland). The NWRWMG was originally established in 1999, as one of three sub-regional groups, in recognition by all District Councils in Northern Ireland of the mutual benefits to be gained from a regional approach to waste management planning. The NWRWMG works on behalf of its member councils to guide, support and help them meet their legal requirements and drive forward innovative waste management programmes, with an aim to implement environmentally sound waste management programmes based on the principles of 'Reduce, Re-use and Recycle'. These councils in the NWRWMG are listed below and shown in **Figure 1.1**:

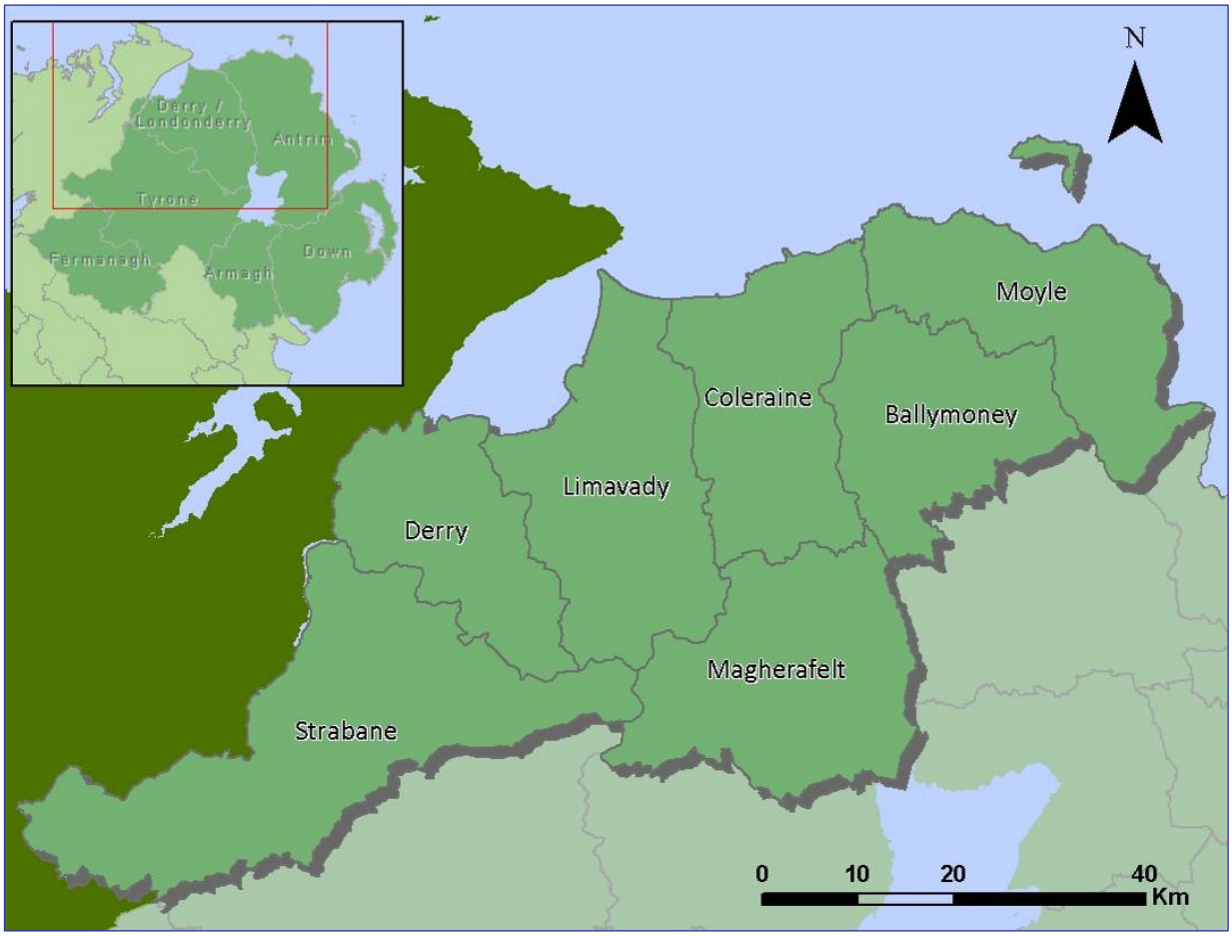
- Ballymoney Borough Council
- Coleraine Borough Council
- Derry City Council
- Limavady Borough Council
- Magherafelt District Council
- Moyle District Council
- Strabane District Council

The NWRWMG issued a draft Waste Management Plan (WMP) for public consultation in 2002. This Plan considered various options and suggested how the region's waste should be managed until 2020. The Plan was subsequently approved by Government and adopted by constituent councils in 2003. The WMP was reviewed in 2006 and, following further public consultation, was approved by Northern Ireland's Department of the Environment (DoE) and the NWRWMG councils.

This is the second Draft of the NWRWMG WMP 2013 – 2020 to undergo Strategic Environmental Assessment, as there have been amendments to the alternatives available to the Plan.

The Review of the WMP 2006-2020 currently under consideration deals only with the local authorities under the responsibility of NWRWMG.

Figure 1.1: Northern Ireland Local Authorities under the Remit of NWRWMG



1.2 NWRWMG WASTE MANAGEMENT PLAN 2006 - 2012

The NWRWMG WMP 2006-2012 was a review of the NWRWMG WMP 2003-2006 and the purpose of this update was to set out waste management arrangements for the NWRWMG Region to fulfil the requirements of, and take account of changes to waste management regulation and policy, including:

- Northern Ireland Waste Management Strategy (2006);
- Landfill Allowance Scheme (Northern Ireland) Regulations 2004 (NILAS);
- Northern Ireland Best Practicable Environmental Option (NI BPEO) 2005;
- The Thematic Strategy on the Prevention and Recycling of Waste; and
- Strategic Environmental Assessment (SEA).

The targets and methods for dealing with municipal wastes in the Plan took account of the Northern Ireland Landfill Allowance Scheme (NILAS) and the targets set out in the Northern Ireland Waste Management Strategy 2006. The primary targets for household waste specified in these documents were:

Household Waste Recycling and Composting Targets

- To recycle and compost 35% of household wastes by 2010
- To recycle and compost 40% of household wastes by 2015
- To recycle and compost 45% of household wastes by 2020

Waste Diversion Targets

- Reduce the quantity of biodegradable municipal waste landfilled, through adherence to NILAS allowances for NWRWMG District Councils, to:

    - 75% of 1995 baseline levels by 2010
    - 50% of 1995 baseline levels by 2013
    - 35% of 1995 baseline levels by 2020

The Plan provided a framework for waste management provision and a regional network of facilities for all controlled wastes produced within the NWRWMG up to 2020. It established the overall need for waste management capacity in the NWRWMG and detailed the proposed arrangements to deal with the wastes produced. These included collection, recovery, recycling, treatment and disposal services.

Implementation of the WMP followed formal adoption, and was proposed to include:

- The development of an education and awareness programme including a waste communication fund to promote waste prevention and increase participation in recycling and composting schemes;
- All District Councils to draw up a waste prevention action plan to deal with their own waste;
- Priority for continued joint procurement of services by NWRWMG Councils;
- Letting of contracts for composting and recovery facilities to meet targets;
- Full implementation of new kerbside collection systems;
- Full implementation of proposed improvement of civic amenity centres / recycling centres and development of new bring facilities; and
- Preparation of suitable contract(s) for long term provision of waste management services.

1.3 PLAN PROGRESS

During the period since the implementation of the previous WMP for the NWRWMG in 2006, both the NWRWMG and its constituent councils have implemented various measures to meet the targets set out in the Plan. These include:

- The introduction of kerbside bins for recyclable and organic wastes in the Region;
- Planned improvements have been carried out at Civic Amenity sites / Recycling Centres, and new bring facilities have been developed.

- Appropriate contracts have been let or are being procured by the NWRWMG for the recovery and composting of recyclable and compostable wastes.
- The NWRWMG and each Council have continued to deliver a waste education and awareness programme to increase participation in recycling and composting schemes.
- Central to the implementation of that Waste Management Plan was the delivery of the necessary Residual Waste Treatment infrastructure. A decision to proceed with the procurement of this infrastructure was taken in late 2008. The preferred bidder, SBS Waste Partnership, was announced by the NWRWMG in mid 2013 and is made up of up of local and international expertise in the waste sector. The companies involved are Brickkiln Waste Ltd, John Sisk & Son Ltd and Shanks Waste Management Ltd. The technologies to be utilised for the treatment of residual waste are Mechanical Biological Treatment (MBT) and gasification. The MBT process is designed, in principle, to recover additional materials, such as metals, glass, and other marketable resources and then to produce a fuel from those remaining materials to recover energy in the gasification process. Construction work on these facilities is due to commence in late 2013 / early 2014. The previous SEA considered the decision to proceed with such infrastructure and as that decision making process was previously concluded, the delivery of the residual waste infrastructure is considered the baseline for this SEA.

However, during the review of the 2006 Plan and the formulation of the 2013 Plan the NWRWMG agreed to recommend to the Group's constituent Councils that they would not continue with the procurement of the North West Region Waste Infrastructure Project to deliver new waste infrastructure for the treatment of residual (black bin) waste. The recommendation was made due to the degree of uncertainty surrounding the project and question marks over the potential for successful delivery of the project in accordance with the appointment business case and the original final tender submission. It was concluded that continuing with this uncertainty placed Councils in a position where it would be difficult to plan adequately to ensure that future waste management obligations were met under the EU Waste Framework Directive. In addition, continuing with the project would involve considerable additional cost to the public purse with no guarantee of a successful outcome.

Due to this amendment to the Plan, this is the second Draft of the NWRWMG WMP 2013 – 2020 to undergo Strategic Environmental Assessment

1.4 WASTE STATISTICS 2006 - 2012

Tables 1.1 to **1.5** demonstrate the waste arising tonnages, recycling rates, composting rates, landfill tonnages and biodegradable waste (BMW) landfilled for each of the NWRWMG council areas during the Plan period of 2006 – 2012. These are the currently available statistics that can be used as the main quantitative gauges of the progress of the Plan to date.

Table 1.1 Local Authority Collected Municipal Waste Arisings (tonnages) (2006 – 2012)

	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12
Ballymoney	15,923	14,977	14,875	15,309	15,686	15,720
Coleraine	43,860	41,477	39,496	40,236	37,143	35,261
Derry	61,174	61,316	59,367	58,469	59,348	55,984
Limavady	18,314	20,812	17,951	17,776	17,820	17,255
Magherafelt	24,387	24,751	24,260	25,296	24,803	24,507
Moyle	10,644	10,712	10,023	10,089	9,789	9,544
Strabane	22,688	22,970	21,185	20,311	20,207	18,856
Total	**197,010**	**197,015**	**187,158**	**187,486**	**184,798**	**177,128**
% Change	**+3.287**	**+0.003**	**-5.003**	**+1.175**	**-1.434**	**-4.150**

Table 1.2 Local Authority Collected Municipal Waste Recycling and Composting Rates (2006 – 2012)

	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12
Ballymoney	21.9%	24.0%	29.9%	34.1%	33.6%	35.2%
Coleraine	22.4%	25.6%	34.4%	29.8%	33.5%	37.8%
Derry	23.6%	28.3%	29.6%	29.6%	29.2%	29.8%
Limavady	28.1%	36.2%	33.5%	34.9%	35.3%	36.6%
Magherafelt	32.1%	35.5%	40.3%	48.4%	51.8%	59.1%
Moyle	21.1%	29.0%	28.1%	32.6%	33.9%	38.5%
Strabane	20.3%	21.0%	22.8%	23.8%	31.2%	31.7%
Total	**24.1%**	**28.3%**	**31.6%**	**32.6%**	**34.6%**	**37.3%**

Table 1.3 Household Waste Recycling and Composting Rates (2006 – 2012)

	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12
Ballymoney	24.7%	26.2%	32.5%	35.5%	35.0%	36.2%
Coleraine	25.7%	29.9%	38.4%	34.9%	36.1%	39.8%
Derry	24.4%	31.9%	32.6%	31.9%	29.6%	28.8%
Limavady	28.5%	36.0%	33.0%	34.3%	35.1%	36.4%
Magherafelt	35.3%	38.1%	42.1%	50.0%	53.0%	60.2%
Moyle	26.5%	34.5%	30.7%	34.4%	36.2%	41.2%
Strabane	22.8%	23.0%	25.7%	26.1%	32.8%	33.6%
Total	**26.3%**	**31.3%**	**34.2%**	**35.0%**	**35.7%**	**37.9%**

Table 1.4 Local Authority Collected Municipal Waste Landfill Tonnages (2006 – 2012)

	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12
Ballymoney	12,373	11,388	10,426	9,995	10,289	9,970
Coleraine	34,042	30,722	25,087	26,819	23,481	20,155
Derry	46,752	43,971	41,781	41,142	41,992	39,166
Limavady	13,171	13,283	11,821	10,966	10,848	9,919
Magherafelt	16,400	15,816	14,480	12,589	10,551	6,841
Moyle	8,418	7,607	6,976	6,796	6,462	5,676
Strabane	18,093	18,141	16,286	15,404	13,306	11,926
Total	**149,249**	**140,929**	**126,857**	**123,711**	**116,931**	**103,654**

Table 1.5 Biodegradable Local Authority Collected Municipal Waste (BLACMW) Landfill Tonnages (2006 – 2012)

	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12
Ballymoney	8,724	8,048	7,172	5,827	5,505	5,659
Coleraine	23,411	21,203	17,027	16,355	13,874	12,055
Derry	33,509	31,900	30,962	26,543	27,117	25,546
Limavady	9,200	9,304	8,363	6,646	6,347	5,927
Magherafelt	10,977	10,354	9,438	6,301	5,213	3,548
Moyle	5,739	5,211	5,056	3,855	3,976	3,431
Strabane	12,697	12,743	11,540	9,431	8,251	7,350
Total	**104,257**	**98,763**	**89,558**	**74,958**	**70,282**	**63,516**
% Change		**-5.3%**	**-9.3%**	**-16.3%**	**-6.2%**	**-9.6%**

These statistics for the previous Plan period demonstrate that the NWRWMG WMP is having the desired effect in reducing waste arisings, increasing recycling rates and reducing landfill tonnages.

2 STRATEGIC ENVIRONMENTAL ASSESSMENT

Strategic Environmental Assessment (SEA) is a process for evaluating, at the earliest appropriate stage, the environmental quality and consequences of Plans or Programmes. The purpose is to ensure that the environmental consequences of plans and programmes are assessed both during their preparation and prior to adoption. The SEA process also gives interested parties an opportunity to comment on the environmental consequences of implementing plans or programmes and to be kept informed during the decision making process.

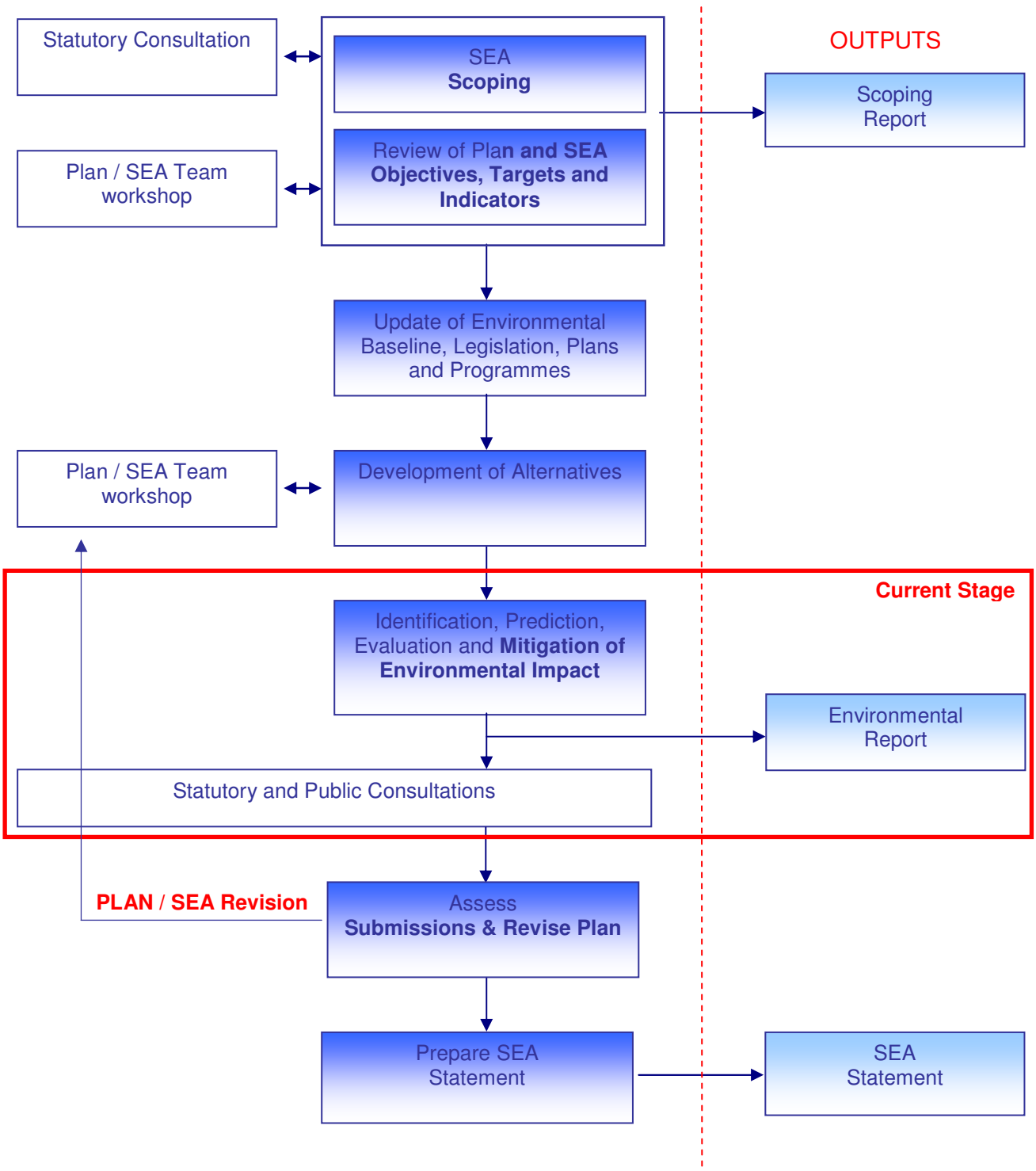
The European Directive (2001/42/EC) on the Assessment of the Effects of Certain Plans and Programmes on the Environment (the SEA Directive), was transposed into national legislation in Northern Ireland by the Environmental Assessment of Plans and Programmes Regulations (Northern Ireland) 2004 (S.R. 280/2004).

The SEA process is normally comprised of the following steps:

- **Screening**: Decision on whether or not a SEA of a Plan/Programme is required;
- **Scoping**: Consultation with the defined statutory bodies on the scope and level of detail to be considered in the assessment;
- **Environmental Assessment**: An assessment of the likely significant impacts on the environment as a result of the Plan or Programme;
- An **Environmental Report**;
- **Consultation** on the draft Plan/Programme and associated Environmental Report;
- **Evaluation of the submissions** and observations made on the draft Plan/Programme and Environmental Report; and
- Issuance of a **SEA Statement** (identifying how environmental considerations and consultation have been integrated into the Final Plan/Programme).

As this Plan is an update of an existing Waste Management Plan the SEA process in this instance will be slightly different than that of a new Plan. Much of the work involved in this assessment was the review of the previous Plan and SEA, followed by the development and assessment of alternatives for the new Plan. **Figure 2.1** shows the key steps required to complete this SEA process in accordance with the Northern Ireland legislation.

Figure 2.1: Overview of SEA Process



Scoping

Under Article 6 of the SEA Directive, the competent authority (in this case NWRWMG on behalf of the 7 Local Authorities it represents) preparing the plan or programme is required to consult with specific "environmental authorities" (statutory consultees) on the scope and level of detail of the information to

be included in the Environmental Report. The statutory consultees established within the legislation for Northern Ireland are:

- Northern Ireland Environment Agency (NIEA) (formerly Environment and Heritage Service)

Due to the geographical location of the NWRWMG region, with several of its constituent councils on the international border with Ireland, transboundary consultations took place with the relevant SEA consultees in Ireland, namely:

- Environmental Protection Agency (Ireland)
- Department of Environmental, Community and Local Government (Ireland)
- Department of Communications, Energy and Natural Resources (Ireland)
- Department of Arts, Heritage and the Gaeltacht (Ireland)

The main objective of this scoping process was to identify key issues of concern that should be addressed in the assessment of the Plan and the appropriate level of detail to which they should be considered.

The Draft SEA Scoping Report for the NWRWMG WMP 2013 – 2020 was delivered to the statutory and transboundary consultees on 1st July 2013. Responses received to the Draft Scoping Document can be found in **Appendix A**.

2.1.1.1 Defining the Scope

Table 2.1 provides a summary of the scope of the SEA.

Table 2.1 Scope of the SEA

Geographic Scope	The geographical scope of the SEA is generally the same as the Plan, therefore limited to the boundaries of the local authorities that make up the NWRWMG region. This geographical scope of the SEA is however flexible if any further afield or transboundary impacts were anticipated and required assessment.
Temporal Scope	The temporal scope of the Waste Management Plan is from 2013 to 2020, and this is also the temporal extent of the SEA, however all alternatives are to be assessed for their short, medium and long term environmental impacts.
Scoping of SEA Environmental Topics	All of the environmental topics listed in the SEA Directive have been scoped in for the assessment of the WMP 2013 – 2020. These are: Air and Climate Biodiversity, Flora and Fauna Cultural, Architectural and Archaeological Heritage Human Health Landscape Material Assets Population Soils and Geology Water

2.2 RESPONSIBLE AUTHORITY

This SEA is being carried out on behalf of NWRWMG, who are the responsible authority for representing the waste management planning for the 7 local authorities in the north west of Northern Ireland.

2.3 STUDY TEAM

The study team for the SEA of the NWRWMG WMP comprises of engineering, environmental and planning team members from both the NWRWMG and RPS (Environmental and Engineering Consultancy). Throughout the Plan and SEA the relevant team members from both NWRWMG and RPS have worked closely together to ensure integration.

3 METHODOLOGY AND CONSULTATION

3.1 INTRODUCTION

The SEA Directive requires that certain Plans and Programmes, which are likely to have a significant impact on the environment, be subject to the SEA process. The SEA process is broadly comprised of the steps in **Table 3.1**:

Table 3.1 SEA Steps

SEA Step / Stage	Purpose	Status
Screening	Decision on whether or not an SEA of a Plan/Programme is required.	Not undertaken as is a review of a previously assessed Plan and SEA. Discussion undertaken with NIEA.
Scoping	Consultation with the defined statutory bodies on the scope and level of detail to be considered in the assessment.	Completed July / August 2013.
Environmental Assessment - 1	Assessment of the likely significant impacts on the environment as a result of the Plan or Programme culminating in the production of an Environmental Report.	Completed August / September 2013.
Consultation	Consultation on the draft Plan and associated Environmental Report.	This took take place in October / November 2013.
Environmental Assessment - 2	Revised assessment of the likely significant impacts on the environment as a result of the Plan or Programme culminating in the production of an Environmental Report.	Completed September / October 2014.
Consultation	Consultation on the revised draft Plan and associated Environmental Report.	Early 2015.
SEA Statement	Identification of how environmental considerations and consultation have been integrated into the Final Plan culminating in the production of an SEA Statement.	To be published with Final Plan in early 2015.

3.2 GUIDANCE

The Environmental Report contains the findings of the assessment of the likely significant effects on the environment resulting from implementation of the NWRWMG WMP 2013-2020. It reflects the requirements of the SEA Directive (2001/42/EC) on the assessment of the effects of certain plans and programmes on the environment and also the transposed regulations Northern Ireland (S.R. 280/2004).

Guidance that has been used during the overall SEA process and preparation of the Environmental Report can be found listed in **Section 13**.

3.3 ENVIRONMENTAL ASSESSMENT AND ENVIRONMENTAL REPORT

3.3.1 Contents of the Environmental Report

Based on the legislation and guidance, the Environmental Report must include the information outlined in **Table 3.1**.

Table 3.2 Key Elements of the Environmental Report

Requirement of SEA Directive (Article 5(1), Annex 1)	Section of Environmental Report
An outline of the contents and main objectives of the plan or programme, or modification to a plan or programme, and relationship with other relevant plans or programmes;	1 / 4 / 6
The relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan or programme, or modification to a plan or programme,	5
The environmental characteristics of areas likely to be significantly affected	5
Any existing environmental problems which are relevant to the plan or programme, or modification to a plan or programme, including, in particular, those relating to any areas of a particular environmental importance, such as areas designated pursuant to the Birds Directive or the Habitats Directive	5
The environmental protection objectives, established at international, European Union or national level, which are relevant to the plan or programme, or modification to a plan or programme, and the way those objectives and any environmental considerations have been taken into account during its preparation	6 / 7
The likely significant effects on the environment, including on issues such as biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage including architectural and archaeological heritage, landscape and the interrelationship between the above factors	9
The measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the plan or programme, or modification to a plan or programme	10
An outline of the reasons for selecting the alternatives dealt with, and a description of how the assessment was undertaken including any difficulties (such as technical deficiencies or lack of know-how) encountered in compiling the required information	3 / 8 / 9
A description of the measures envisaged concerning monitoring of the significant environmental effects of implementation of the plan or programme, or modification to a plan or programme	10
A non-technical summary of the information provided under the above headings	0

3.4 SEA STATEMENT

The main purpose of the SEA Statement is to provide information on the decision-making process and to document how environmental considerations, i.e. the views of consultees and the recommendations of the Environmental Report, have been taken into account in the adopted NWRWMG WMP 2013-2020. The SEA Statement illustrates how decisions were taken, making the process more transparent. The SEA Statement for NWRWMG WMP 2013-2020 will be compiled after the statutory consultation on the draft Plan and SEA Environmental Report has been completed.

3.5 DIFFICULTIES AND DATA GAPS

No significant difficulties and data gaps were encountered in the SEA of the NWRWMG WMP 2013-2020. However as the previous WMP has been fully implemented, most of the measures within the current WMP are continuations of and slight improvements upon existing practices, with no major development or changes in working practices. This in turn makes environmental assessment of measures slightly difficult as most potential impacts are so minor. This was also reflected in the assessment of the revised version of the WMP, as all alternatives are slight improvements on existing measures, with no major development or changes in working practices.

3.6 SCOPING CONSULTATION

To begin the process of scoping the SEA for the NWRWMG WMP 2013-2020 an initial consultation was held with the Statutory Authorities, as designated by the relevant SEA legislation and listed in **Table 3.4**. This step also represented the transboundary consultation.

Table 2.4 Consultees in the SEA Scoping Process

Consultee	Status
NIEA	Statutory
arc21	Non-Statutory
SWaMP2008	Non-Statutory
Environmental Protection Agency (Ireland)	Transboundary
Department of Environmental, Community and Local Government (Ireland)	Transboundary
Department of Communications, Energy and Natural Resources (Ireland)	Transboundary
Department of Arts, Heritage and the Gaeltacht (Ireland)	Transboundary

Written comments received from consultees during the Scoping Process are included in **Appendix A.**

3.7 TRANSBOUNDARY CONSULTATION

Under the Environmental Assessment of Plans and Programmes Regulations (Northern Ireland) (S.R. 280 of 2004), transboundary consultations are required where the Plan is likely to have significant environmental effects on other Member States. The transboundary statutory consultees in the Republic of Ireland will be included within consultations for the NWRWMG WMP and SEA Environmental Report for best practice; however it is not thought that there are any requirements for formal consultations under Article 7 of the SEA Directive.

3.8 PROPOSED CONSULTATION ON DRAFT PLAN AND ENVIRONMENTAL REPORT

Joint statutory and public consultation on the draft Waste Management Plan and the SEA Environmental Report for the Plan commenced in October 2013. Following this consultation there was a revision to the Plan that affected one of the alternatives available and subsequently this revised Environmental Report was required. Consultation on the review of the second draft Waste Management Plan and the SEA Environmental Report for the Plan will commence in early 2015. Any responses received with regards to the Environmental Report have been included within **Appendix B** of this document.

4 DESCRIPTION OF THE PLAN

4.1 INTRODUCTION

The NWRWMG is one of three waste management groups in Northern Ireland representing 7 councils in the north west of Northern Ireland. NWRWMG works on behalf of its member councils to guide, support and help them meet their legal requirements and drive forward innovative waste management programmes, with an aim to implement environmentally sound waste management programmes based on the principles of 'Reduce, Re-use and Recycle'. The NWRWMG WMP 2013-2020 is a review of the previous NWRWMG WMP from 2006. This revised Plan sets to continue the progress of waste management within the NWRWMG region of Northern Ireland in meeting the requirements from European EU Directives, UK wide legislation and National legislation to Prevent waste generation, Prepare for material reuse, Recycle materials, Recover materials and as a last resort Dispose of material.

4.2 NWRWMG

The NWRWMG Region, which is referred to within this WMP, consists of the administrative areas of Ballymoney, Coleraine, Derry / Londonderry, Limavady, Magherafelt, Moyle and Strabane. These areas are all situated in the north west region of Northern Ireland, have a combined area of 378,077 hectares, which is almost 28% of the area of the country, with a population of 333,365 and 124,355 households (NISRA 2011). The NWRWMG region represents 18.4% of the total population and 17.7% of the total number of households in Northern Ireland. Within the NWRWMG Region the principal cities and towns are Derry City, Coleraine, Strabane and Limavady.

4.3 WASTE MANAGEMENT PLAN 2013 - 2020

The NWRWMG WMP 2013-2020 sets out the previously existing and new or revised waste management legislation that the NWRWMG local authorities must adhere to, including any new targets to be met. The Plan describes the various waste streams within the NWRWMG region, their changing tonnages and characteristics since the previous Plan implementation.

The NWRWMG preferred waste management solutions, as set out in the previous Plan, have been and are currently being implemented. These solutions can be summarised as follows:

- The introduction of kerbside bins for recyclable and organic wastes in the Region;
- Planned improvements have been carried out at Civic Amenity sites / Recycling Centres, and new bring facilities have been developed.
- Appropriate contracts have been let or are being procured by the NWRWMG for the recovery and composting of recyclable and compostable wastes.

- The NWRWMG and each Council have continued to deliver a waste education and awareness programme to increase participation in recycling and composting schemes.
- The NWRWMG have initiated and continue to progress a procurement process for the provision of long term residual waste management services for the region.

4.4 NWRWMG WASTE MANAGEMENT PLAN REVIEW

RPS have undertaken a review of the NWRWMG WMP that was published in 2006. The 2006 Plan set out the arrangements for the management of controlled wastes over the period 2006 to 2020 including identifying capacity needs, potential sites and / or siting criteria, and the services needed for the collection, treatment and disposal of the wastes. Waste streams considered in the review of the plan include municipal wastes, commercial and industrial wastes, construction, demolition and excavation wastes, packaging wastes, agricultural wastes, hazardous wastes and priority and other controlled waste streams.

The EU Waste Framework Directive and the Waste and Contaminated Land (Northern Ireland) Order, 1997 requires each District Council to prepare Waste Management Plans including the arrangements for managing controlled waste arisings, which must be reviewed at least every 6 years. The review that is currently taking place is in fulfilment of this requirement. In addition, the Department of the Environment is currently reviewing the Northern Ireland Waste Management Strategy and there is now a legal onus on NWRWMG to review their Waste Management Plan in line with this Strategy review.

The review of the Waste Management Plan prepared in 2006 took into consideration:

- Changes and update of waste flows of each waste stream in the period since the previous plan was prepared;
- The requirement to meet waste recycling targets set out in the revised Waste Framework Directive and the draft Northern Ireland Waste Management Strategy – Delivering Resource Efficiency and NI Executive's Programme for Government 2011-15. Key targets therefore include:
  - ***EU Waste Framework Directive:*** to achieve a recycling rate of 50% (including preparing for reuse) of household waste by 2020;
  - ***EU Waste Framework Directive:*** to achieve a recovery rate of 70% (including preparing for reuse, recycling and other material recovery) for all non-hazardous construction and demolition waste by 2020;
  - ***Programme for Government:*** to achieve a recycling rate of 45% (including preparing for reuse) of household waste by 2015
  - ***NI Waste Management Strategy:*** to achieve a recycling of 60% (including preparing for reuse) of Local Authority Collected Municipal Waste
- Review and take into consideration any changes in applicable legislation since the previous plan was prepared.

4.5 POTENTIAL VARIATIONS TO THE PLAN

The Review of Public Administration (RPA), which will take place by April 2015, will result in the reduction in the number of Local Authorities within Northern Ireland from 26 to 11. The 11 new Local Authorities will be larger with additional responsibilities and powers. The implementation of RPA may impact on the NWRWMG grouping in respect of the inclusion or exclusion of certain Local Authorities. The Review of Public Administration with regards to the NWRWMG is detailed further in Section 7 of the Waste Management Plan.

4.6 KEY OBJECTIVES OF THE WASTE MANAGEMENT PLAN

The subject of the SEA for which this Environmental Report is being compiled is the third revision of the WMP for the councils within NWRWMG.

The key objectives of the NWRWMG WMP 2013 - 2020 are to:

1. To develop an integrated network of facilities to meet the needs of the North West Region.
2. To minimise the amount of waste produced within the region.
3. To maximise resource efficiency.
4. To minimise environmental impacts.
5. To ensure that the identified facilities and services are in place in time to enable district councils to meet their statutory targets and obligations.
6. To encourage regional self sufficiency, as far as practicable and economical, within the North West Region.
7. To ensure that the actions and measures identified in the Plan are:
   - Deliverable, with respect to timescales for implementation; and
   - Practical, building upon existing services and facilities within the region.
8. To identify and manage risks (financial, planning and contractual) in a systematic manner, to ensure that risks lie with those parties best placed to manage them effectively.
9. To adopt a regional approach to the sharing of targets to ensure that NWRWMG as a whole is able to meet its targets, with individual action and targets agreed for each Council, taking into account demographic factors, including spread of population and associated costs for the provision of services.

The new WMP details the previous measures proposed and assessed in the 2006 Plan and offers new measures to enable the NWRWMG local authorities meet the revised waste management targets.

5 BASELINE ENVIRONMENTAL

5.1 INTRODUCTION

In line with the SEA Directive an environmental baseline is to be compiled for the SEA of the NWRWMG WMP 2013-2020. This will include: a description of the state of the environment at present; a discussion of the key problems/ issues currently being faced in the area; and a description of the expected evolution of the environment should the Plan not be implemented, i.e. in the absence of the plan. The following section provides baseline information from the previous SEA of 2006, with updated environmental baseline information where appropriate.

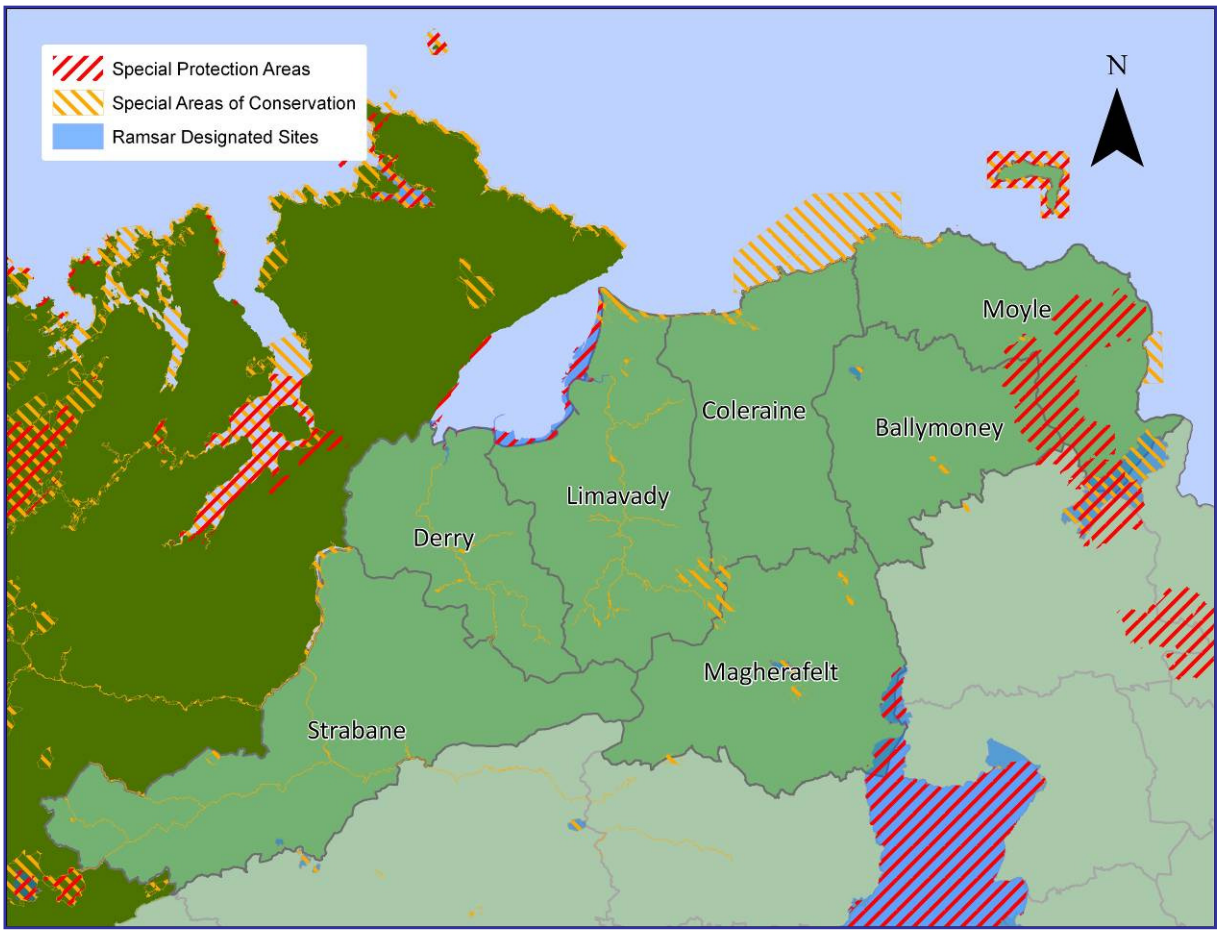
5.2 BASELINE AND RELEVANT ENVIRONMENTAL PROBLEMS

5.2.1 BIODIVERSITY, FLORA AND FAUNA

There are a wide variety of natural habitats within the NWRWMG region, protected by a range of designations. There are 24 Special Areas of Conservation (SAC) that are within the NWRWMG region. SACs are designated under the Habitats Directive (92/43/EEC), and are enacted in Northern Ireland by The Conservation (Natural Habitats) Regulations (Northern Ireland) 1995 (SR No. 380 of 1995) and amendments. These areas will contain rare and vulnerable habitats and/or species of European importance. Special Protection Areas (SPA) are designated under The EU Directive on the Conservation of Wild Birds (EC/79/409), “The Birds Directive”, as areas that are important for rare and vulnerable bird species as they use them for breeding, feeding, wintering or migration. There are 5 Special Protection Areas within the NWRWMG region. Any development with the potential to impact upon a Natura 2000 designated site (SACs or SPAs) is likely to require a Habitats Regulation Assessment (HRA) under the Habitats Directive 92/43/EEC. Any new or enhanced waste management facilities should avoid the loss or fragmentation of habitats, as these types of environmental damage are a continuing issue in the region.

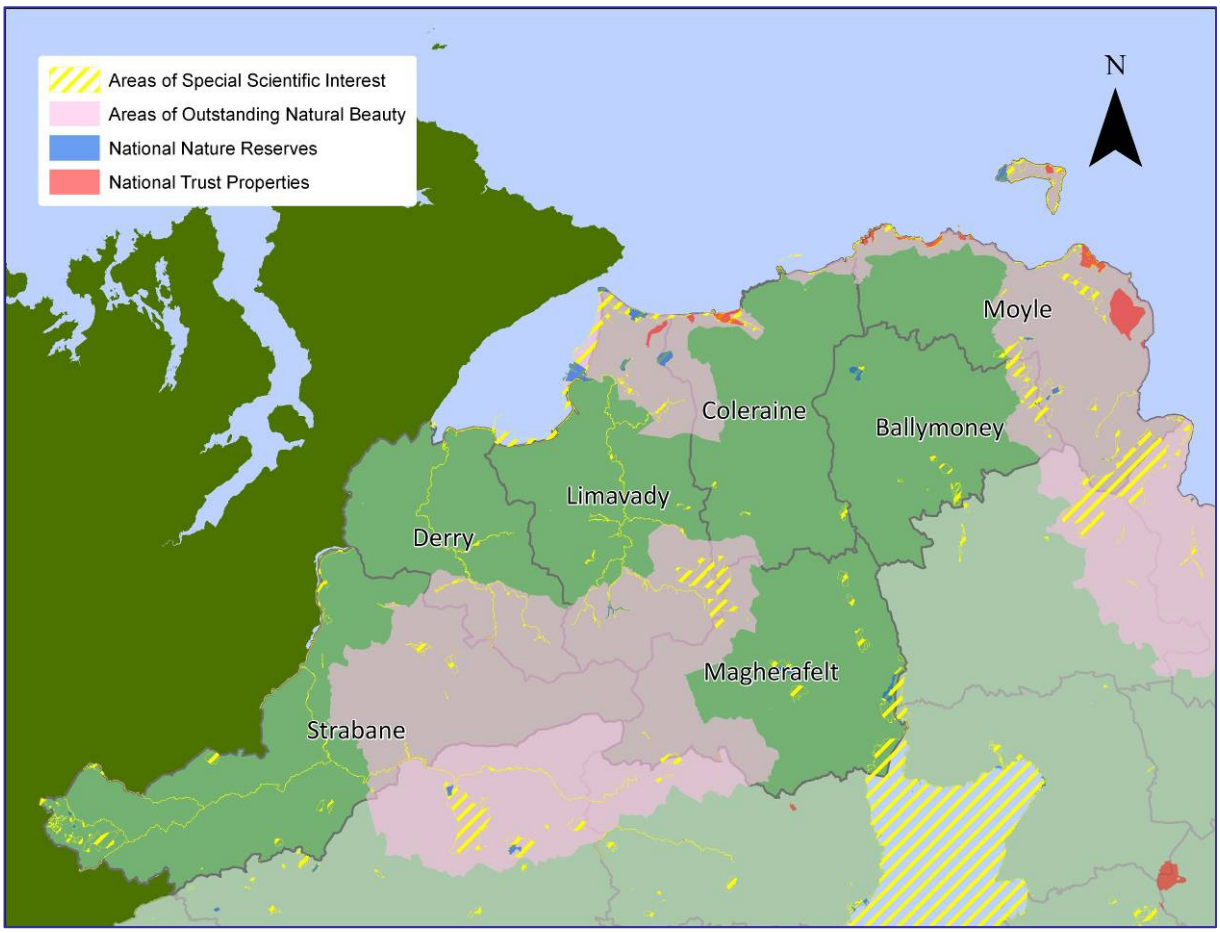
The Convention on Wetlands in Ramsar, Iran (1971), called the "Ramsar Convention", is an intergovernmental treaty that embodies the commitments of its member countries to maintain the ecological character of their Wetlands of International Importance. These designations are known as Ramsar sites. There are 6 Ramsar sites within the NWRWMG region. The European and international environmental designations in the north west of Northern Ireland and Ireland are shown in **Figure 5.1**.

Figure 5.1: European and International Environmental Designations



Northern Ireland environmental designations that are within the NWRWMG region have been designated under Northern Ireland legislation for environmental protection of biodiversity, flora and fauna consist of Areas of Special Scientific Interest (ASSI) and National Nature Reserves (NNR). ASSIs are protected under the Environment (Northern Ireland) Order 2002, and the NIEA must, as required by the law laid down in the Order, declare land as an ASSI if it is of special scientific interest because of the flora or fauna that is found on it, or because of geological features. There are 99 ASSIs within the NWRWMG region, which are shown in **Figure 5.2**. National Nature Reserves (NNR) are chosen from among the very best examples of Northern Irelands' wildlife, habitats and geology. They contain a wide range of species, communities and geology and their designation is a public recognition by Government of their importance. The primary aim of managing NNRs is to conserve their features now and for future generations through the development of experience and techniques in managing land for conservation. A secondary aim is to provide opportunities, where practical, for the public to experience these natural habitats and landscape features and to interact quietly with nature. There are 17 Nature Reserves within the NWRWMG region. There are also 16 National Trust properties / areas within the NWRWMG area.

Figure 5.2: ASSI and AONB Designated Areas



Sites of Local Nature Conservation Interest (SLNCI) designations are required under Planning Policy Statement 2, Planning and Nature Conservation, and are designated by District Councils under Article 22 of the Nature Conservation and Amenity Lands (Northern Ireland) Order 1985. These SLNCIs are wildlife refuges where special protection measures for some or all species are implemented, or are non-statutory nature reserves managed by voluntary conservation bodies. There are approximately 287 SLNCIs within the NWRWMG area. These SLNCIs however do not include habitats and areas protected in the Area Plans for Derry and Strabane. The Derry Area Plan 2011 however designates Castle River, Cumber, Enagh Loughs, Foyle Park, Gransha Intake, Learmount and Prehen Wood as Areas of Local Nature, Conservation and Amenity Importance. The Strabane Area Plan 2001 is proposed to be replaced with the West Tyrone Area Plan 2019, which will designate local nature conservation areas.

Within the NWRWMG region there are also known to be some 670ha of ancient woodland and 1,086ha of long standing woodland, as recorded by the Woodland Trust. These areas may contain some of Northern Ireland's Priority Habitats and Species.

In addition to these designated areas there are also sensitive and valued habitats and species which are reported by each council area in their Local Biodiversity Action Plans (LBAPs). These Plans establish the natural heritage value for the area and guide where development should be allowed to happen and what enhancement works could be undertaken to improve biodiversity.

It is recommended within the "Northern Ireland Biodiversity Strategy" that all public bodies conserve and enhance biodiversity on their lands and through their activities (Recommendation 41) and it is recommended to implement the Waste Management Strategy for Northern Ireland and continue to review current policies that relate to illegal dumping which has an impact on biodiversity (Recommendation 42). Within "Delivery of the Northern Ireland Biodiversity Strategy (2005-2009)" one of the six Cross-Cutting recommendations is "Embodiment of a duty on all public bodies to further the conservation of biodiversity within the Wildlife and Natural Environment (WANE) Act 2011."

5.2.2 POPULATION AND HUMAN HEALTH

Although the population density of the NWRWMG Region is low by comparison with other European rural regions at 90 persons per square kilometre, the scattered distribution of farms and houses creates the visual impression of a 'peopled countryside'.

In total the NWRWMG region covers an area of 378,077 hectares, around 28% of Northern Ireland's landmass, with a population of 333,365 and 124,355 households (NISRA 2011). The NWRWMG region represents 18.4% of the total population and 17.7% of the total number of households in Northern Ireland. The current unemployment rate in Northern Ireland is around 8%; however the average unemployment rate within the NWRWMG region is lower at around 5.5%.

Ballymoney Borough Council covers an area of 417km^2, around 3% of Northern Ireland's landmass, with a population of 31,224 and 11,508 households (NISRA 2011). The unemployment rate in the Council area is about 5.3%, with the main employment sectors being wholesale and retail trade (21.2%), health and social work (22%), manufacturing (10.6%), construction (10.5%) and education (10.5%). The Council area has approximately 1,415 small enterprises (<50 employees), 15 medium enterprises (50-250 employees) and no large enterprises (>250 employees) (NISRA, 2013).

Coleraine Borough Council covers an area of 483km^2, around 3.5% of Northern Ireland's landmass, with a population of 59067 and 23,508 households (NISRA 2011). The unemployment rate in the Council area is about 4.9%, with the main employment sectors being wholesale and retail trade (20.8%), health and social work (17.7%), education (12.9%), manufacturing (9.7%), accommodation and food (9.3%) and Public Admin and Food (7%). The Council area has approximately 2,150 small enterprises (<50 employees), 35 medium enterprises (50-250 employees) and 5 large enterprises (>250 employees) (NISRA, 2013).

Derry City Council covers an area of 420km^2, around 3% of Northern Ireland's landmass with a population of 107,877 and 40779 households (NISRA 2011). The unemployment rate in the Council area is about 8.3%, with the main employment sectors being health and social work (20.8%), wholesale and retail trade / repairs (17.6%), education (11.6%) manufacturing (8.7%), accommodation and food (6.1%), public administration and defence (8.3%) and administration and support (7.3%) . The Council area has approximately 2,645 small enterprises (<50 employees), 50 medium enterprises (50-250 employees) and 10 large enterprises (>250 employees) (NISRA, 2013).

Limavady Borough Council covers an area of 584km^2, around 4% of Northern Ireland's landmass with a population of 33,536 and 12,098 households (NISRA 2011). The unemployment rate in the Council area is about 2.9%, with the main employment sectors being wholesale and retail trade / repairs (18.0%), health and social work (15.3%), education (14.5%), construction (12.3%), public administration and defence (12.3%), and manufacturing (8.2%). The Council area has approximately 1,340 small enterprises (<50 employees), 10 medium enterprises (50-250 employees) and no large enterprises (>250 employees) (NISRA, 2013).

Magherafelt District Council covers an area of 570km^2, around 4% of Northern Ireland's landmass, with a population of 45,038 and 15,037 households (NISRA 2011). The unemployment rate in the Council area is about 3.8%, with the main employment sectors being manufacturing (19%), wholesale and retail trade (16.8%), construction (15.4%) health and social work (14.1%), and education (12.5%). The Council area has approximately 2,470 small enterprises (<50 employees), 35 medium enterprises (50-250 employees) and 5 large enterprises (>250 employees) (NISRA, 2013).

Moyle District Council covers an area of 492km^2, around 3.5% of Northern Ireland's landmass, with a population of 17,050 and 6,608 households (NISRA 2011). The unemployment rate in the Council area is about 5.5%, with the main employment sectors being health and social work (20%), wholesale and retail trade (19%), accommodation and food (14%), manufacturing (5.9%) and transport and storage (5.5%) and construction (5%). The Council area has approximately 845 small enterprises (<50 employees), 5 medium enterprises (50-250 employees) and no large enterprises (>250 employees) (NISRA, 2013).

Strabane District Council covers an area of 858km^2, around 4% of Northern Ireland's landmass, with a population of 39,843 and 14,817 households (NISRA 2011). The unemployment rate in the Council area is about 7.2%, with the main employment sectors being wholesale and retail trade / repairs (25.6%), health and social work (13.1%), manufacturing (10.2%), construction (9.4%) and Public admin and defence (5.1%). The Council area has approximately 1,930 small enterprises (<50 employees), 10 medium enterprises (50-250 employees) and no large enterprises (>250 employees) (NISRA, 2013).

From the 2011 census (NISRA, 2011) the public within the NWRWMG region estimated that their health was as follows:

- Very Good Health ~ 48%
- Good Health ~ 31%
- Fair Health ~ 15%
- Bad health ~ 5%
- Very Bad Health ~ 1%

It is important that the implementation of the NWRWMG Waste Management Plan does not negatively impact upon population levels, employment levels and human health within the region. Population levels in the NWRWMG region are rising, as they are throughout Northern Ireland and the whole world. This continual increase in population will invariably lead to increased resource use and waste production, unless better education, more sustainable resource use, sustainable waste management and scientific and technological advancement can provide mitigation for this issue. Employment levels within Northern Ireland and the NWRWMG region took a dip with the recession in 2007 / 2008. These employment levels have remained subdued since then, with no obvious positive trends in any of the NWRWMG council annual employment rates.

Waste management activities have the potential to impact on human health directly from the inhalation of emissions such as dust and odours, which are mainly nuisance issues, and pollutant emissions from vehicles and plant. However, the potentially more significant impacts are indirect, via leachate emissions infiltrating groundwater or surface water resources and then into the food chain via water supplies and agriculture. Waste management activities can also be considered dangerous due to the presence of large plant and vehicles, and the potentially hazardous nature of the waste material itself. Fatalities and serious injury are an ever present risk that needs to be mitigated for in the planning and operation of any waste management activities.

The North West region has also a problem of fly-tipping or illegal depositing of waste on land, which can cause both health, safety and nuisance issues to the public. This problem is proposed to be dealt with via a partnership between the NIEA and the North West Region Councils. The border region between Northern Ireland and Ireland, including the north west, has the potential for the illegal transboundary transportation and dumping of wastes.

5.2.3 WATER

Since the publication of the previous NWRWMG WMP there has been the implementation of the Water Framework Directive throughout Europe. The Water Framework Directive (WFD) (2000/60/EC) introduces a holistic approach to the management of water quality, and establishes a system for the protection and improvement of all aspects of the water environment including rivers, lakes, estuaries,

coastal waters and groundwater. The Directive requires all inland and coastal waters to reach at least "good status" by 2015. Where a waterbody has significant external pressures causing reductions in water quality and therefore its "status", it may have may be given to 2021 or 2027 to achieve "good status."

The NWRWMG region intersects one national River Basin District (RBD), the North Eastern RBD, and two international RBD (iRBD), the North Western iRBD and the Neagh Bann iRBD. This international RBD is so called as is transboundary, crossing the border between Northern Ireland and Ireland. Any negative impacts on surface water, coastal water or groundwater quality from waste management activities within the NWRWMG region therefore has the potential to have both local, regional and transboundary consequences. The River Basin Management Plans for these RBDs were published in 2009.

Within the NWRWMG region there are 177 WFD surface waterbodies. None of these waterbodies are of High Status, 30.5% of them are of Good Status, 54.8% are of Moderate Status and 13.0% and 1.7% have Poor and Bad Status respectively. Almost 70% of the surface waterbodies within the NWRWMG region need to improve their status to adhere to the WFD. There are 22 WFD groundwater bodies within the NWRWMG region. Over 95% of these groundwater bodies are of Good Status, with less than 5% needing to improve their status to adhere to the WFD. There are 3 WFD Lake Waterbodies within the NWRWMG area, 2 of which are of Good Status, while the other 1 lake needs to improve its water status to adhere to the WFD. There are 5 WFD coastal waterbodies just offshore of the NWRWMG area. All five of these waterbodies are of good chemical and ecological status.

Under the Register of Protected Areas from the WFD there are 16 rivers and 1 lake within the NWRWMG area that are protected drinking water abstractions. Drinking water abstractions are designated under the Water Framework Directive (2000/60/EC). There are 2 salmonid lakes and 99 salmonid rivers within the NWRWMG area. Atlantic Salmon (*Salmo salar*) are a Priority Species and are protected under the Freshwater Fish Directive (78/659/EEC) and are listed under in Annexes IIa and Va of the EC Habitat and Species Directive and in Appendix III of the Bern Convention. There are also 2 designated shellfish waters within the region (Balls Point and Longfield Bank) which are protected under the Shellfish Waters Directive (2006/113/EC), both of which are located within Lough Foyle.

There are 6 designated bathing waters within the study area, being Ballycastle, Castlerock, Magilligan, Portrush Curran Strand, Portrush Mill Strand and Portstewart. These waters are protected under the Bathing Water Directive (76/160/EEC), which sets quality standards for Bathing Water. All countries in the European Union have to ensure that their Bathing Waters meet these standards.

An important indicator species of water quality in Northern Ireland and Ireland is the Freshwater Pearl Mussel (FPM) *Margaritifera Margaritifera*. The FPM is protected in Northern Ireland under the Wildlife Order 1985 (as amended by the Wildlife and Natural Environment Act (NI) 2011) and is also listed on

Annexes II and IV of the EU Habitats Directive and Appendix III of the Bern Convention. There are two designated Freshwater Pearl Mussel catchments that intersect the NWRWMG area, being the Ballinderry and Owenkillew. The FPM is listed as Vulnerable on the IUCN Red List and classified as a Priority Species by the UK Biodiversity Steering Group.

It is important to ensure that the management of waste within the NWRWMG region does not negatively impact upon water quality or quantity within the region or surrounding areas. Any impacts from waste management on water quality within the region (e.g. leachate infiltration or air emission deposition) has the potential to then impact upon drinking water supplies and / or the human food chain through agriculture, as well as general negative impacts on biodiversity, flora and fauna. Any contamination of water resources has the potential to reduce the available water quantity within the region for human consumption and agriculture.

5.2.4 AIR AND CLIMATE

Air Quality Management Areas (AQMAs) are designated by local authorities in Northern Ireland in areas where there are potential exceedances of air pollutants as prescribed by the Air Quality Standard and Limit Regulations (SR No. 265 of 2007, SR No. 188 of 2010 and SR No. 2121 of 2003 and amendments) and where there are potential sensitive receptors. Within the NWRWMG there are 10 AQMAs.

Ballymoney Borough Council had previously designated 1 AQMA within the Council area. The Ballymoney AQMA No.1 was designated for potential exceedances of particulate matter (<10µm) in an area in the northwest of Ballymoney to the north by the A26 and to the west by the B66, however this was revoked in February 2012.

Derry City Council has designated 5 AQMAs within the Council Area. The Creggan Road AQMA is designated for potential exceedences of nitrogen dioxide in an area encompassing parts of Creggan Road, Windsor Terrace, Infirmary Road, Creggan Street, Marlborough Terrace and Lone Moor Road. Dale's Corner AQMA is designated for potential exceedences of nitrogen dioxide in an area incorporating all of Ebrington Terrace and Columba Terrace on Limavady Road, Numbers 1-19 Glendermott Road. The Buncrana Road / Racecourse Road AQMA is designated for potential exceedences of nitrogen dioxide in an area incorporating all of St. Patrick's Terrace, all of Maybrook Terrace, and Numbers 1-12 Collon Terrace to the south east. The Spencer Road AQMA is designated for potential exceedences of nitrogen dioxide in an area incorporating numbers 32 to 70a Spencer Road, Derry. The Strand Road AQMA is designated for potential exceedences of nitrogen dioxide in an area encompassing all of Aberfoyle Terrace (numbers 3 to 35), Derry, numbers 95 to 117 Strand Road and number 1 Baronet Street, Derry.

Limavady Borough Council has designated 1 AQMA within the Council Area. The Dungiven AQMA is designated for potential exceedences of nitrogen dioxide in an area encompassing a section of Main Street, Dungiven, between the River Roe Bridge and B64 Garvagh Road.

Magherafelt District Council has designated 1 AQMA within the Council Area. The Magherafelt AQMA is designated for potential exceedences of nitrogen dioxide in an area encompassing Church Street/Lower King Street.

Strabane District Council has designated 3 AQMAs within the Council area. The Strabane AQMA is designated for potential exceedances of particulate matter (<10µm) in an area encompassing most of Strabane south of railway Street/Newtown Street. The Newtownstewart AQMA is designated for potential exceedances of particulate matter (<10µm) in an area encompassing the majority of Newtownstewart south/west of the river Sturle and extending east to (but not including) Newtownstewart Model Primary School. The Castlederg AQMA is designated for potential exceedances of particulate matter (<10µm) in an area encompassing the majority of Castlederg north of William Street. The area extends east to encompass Derg Valley Hospital and the leisure centre, and west to include the playing fields (but not the buildings) of St Eugene's Secondary School.

Moyle District council and Coleraine Borough Council have not declared any Air Quality Management Areas within their council areas.

Waste management activities are also often associated with nuisance air emissions from odour and dust. Modern site management techniques and processing plant design can normally mitigate for these emissions, however they are important factors to consider when siting waste management facilities or planning waste transport routes. Air emissions from waste management activities also have the potential to cause nitrogen deposition on habitats, which can have significant impacts on sensitive sites. Pollution Prevention and Control Regulations require that in planning and operation of waste management facilities both air pollution, nuisance, dust and nuisance odours are planned for, mitigated for and monitored.

It is anticipated that global climate change will cause Northern Ireland to see warmer wetter winters, with drier summers. The frequency of extreme weather events such as flooding may increase as rainfall patterns change. The timing of natural events may alter in response to a changing climate. The balance of species in our environment may change (NIEA, 2013). The Northern Ireland Climate Change Risk and Assessment (CCRA) identifies a range of potential climate change impacts on waste management in Northern Ireland.

The latest environmental indicators as part of the DoE NI Greenhouse Gas Inventory show that in Northern Ireland in 2012 greenhouse gas (GHGs) emissions were over 16% lower than in the base year 1990, when monitoring of such emissions commenced. Emissions have increased between 2011 and 2012 by 2%. There are two main reasons for this increase. Firstly, the 2012 figures include

emissions from widespread forest wildfires which occurred during a spell of particularly dry, windy weather. Secondly, global fuel prices have caused a shift from burning natural gas to coal in the energy supply sector (DOENI, 2014). GHGs are closely associated with waste management activities, due to the emission of methane and carbon dioxide in the degradation of waste material. It is estimated that the waste management sector contributes to 2.3% of total GHG emissions and 14.5% of total methane emissions in Northern Ireland. Emissions from waste management are dominated by methane from landfill (83% of total GHGs). Emissions from landfill in Northern Ireland constitute approximately 3% of all UK landfill emissions. The majority of total GHG emissions are of methane (92% of total sector GHG emissions in 2011). Emissions of GHGs from waste management in Northern Ireland have shown a significant decline of 60% in total for the sector and by 64% for landfill between 1990 and 2011, which is mainly due to UK-wide reductions in the methane emissions estimates from industry and municipal waste water treatment, and from progressive introduction of methane capture and oxidations systems within landfill management (DECC, 2013).

It is important that the local authorities consider how they can reduce their GHG emissions in any planned waste management activities, and that any future waste management measures proposed will be adapted to and resilient to the changing climate.

5.2.5 CULTURAL HERITAGE, INCLUDING ARCHITECTURAL AND ARCHAEOLOGICAL HERITAGE

The NWRWMG region contains many significant man-made features which are evidence of the development of our society. Archaeological sites and monuments, traditional buildings, areas and buildings of architectural and historic interest are part of our heritage and culture. Within the NWRWMG region there is one UNESCO World Heritage Site; The Giant's Causeway and Causeway Coast, which was inscribed by UNESCO in 1986, recognising the outstanding value of the site as per the World Heritage Convention. There is also known to be approximately 4,325 Sites and Monuments, 2,392 Industrial Heritage Features, 2,560 Listed Building features, 56 Heritage Gardens, and 443 Scheduled Zones within the council areas of the NWRWMG. These various heritage designations are protected under the following legislation in Northern Ireland:

- Sites and Monuments - The Historic Monuments and Archaeological Objects (NI) Order 1995;
- Historic Buildings - The Planning (NI) Order 1991;
- Maritime Sites - The Protection of Wrecks Act (1973).

Planning policies for protection and conservation of archaeological remains and features of the built heritage are contained in Planning Policy Statement 6 (PPS 6). Any waste management activities or waste management infrastructure should be planned so as not to negatively impact upon any of these cultural, architectural and archaeological heritage features or the setting of these features.

5.2.6 LANDSCAPE

The NWRWMG region has a wide variety of scenic landscapes which reflects the contrasting geology, topography, long history of settlement and land use. Landscapes recognised as being of distinctive character and special scenic value have been designated Areas of Outstanding Natural Beauty (AONBs) by Government in order to protect and enhance their qualities and to promote their enjoyment by the public. These AONBs are designated under the Nature Conservation and Lands (NI) Order 1985. AONBs within the NWRWMG Region are shown previously in **Figure 5.2** include:

- Antrim Coast and Glens – Designated in 1988 and covering an area of 72,489 ha, the Antrim Coast and Glens AONB runs along the coastline of County Antrim from Ballycastle to Larne to the North East of the NWRWMG Region. This AONB contains both beautiful and varied scenery including: the Glens of Antrim, Slemish Mountain and Rathlin Island;

- Causeway Coast – Designated in 1989 the causeway coast AONB falls within the NWRWMG Region. The designation covers an area of 4,213 ha and is located in Moyle District Council to the north of the North West Region Waste Management Group. The 18 mile stretch displays magnificent features including coastal scenery, sandy beaches as well as the Giant's Causeway World Heritage Site.

- Binevenagh – Designated in 2006 the Binevenagh AONB covers an area of 16,564 ha between the Roe Estuary and Magilligan, the cliffs of Binevenagh, the Bann Estuary and Portstewart sand dunes.

- Sperrin – Designated in 2008 and covering an area of 118,206 ha the Sperrin AONB encompasses a largely mountainous area of geological, archaeological and scenic importance.

There are also a number of areas of scenic quality throughout the NWRWMG Region. These are of regional importance and have been designated as Areas of High Scenic Value (AoHSV) within Development Plans. Development Plans also designate Local Landscape Policy Areas which are those which are within or adjoining settlements which are considered to be of greatest amenity value, landscape quality or local significance. The draft Northern Area Plan 2016 alone designates 149 Local Landscape Policy Areas. The NWRWMG region is also made up of approximately 42 Landscape Character Assessment Areas, as defined by the NIEA in their Landscape Character Assessment Series.

5.2.6.1 Topography

The land surface of Northern Ireland is predominantly lowland, with most of it forming an extensive saucer shaped lowland around Lough Neagh. The inland basin centred on Lough Neagh covers an area of 385km^2 and is surrounded by uplands including the Sperrin Mountains in the north-west, the Antrim Plateau to the north-east and the Mourne Mountains in the south east.

The siting of any proposed waste management infrastructure from a Waste Management Plan would need to carefully consider the landscape character and sensitivity. It is normally an important requirement to site waste management facilities away from population centres, to avoid nuisance dust and odour complaints, but not too far away to make transportation of materials impractical. This could potentially lead to problems as the facilities may still be within the viewshed of the local population and may conflict with the general character of the landscape. It is also important that the closure and restoration of waste facilities within the north west region is well planned to reinstate and even potentially enhance the natural landscape and its biodiversity.

5.2.7 MATERIAL ASSETS

The NWRWMG Region's development network consists of a web of independent centres or urban hubs ranging in scale from the urban City of the Derry through traditional market towns and villages to small rural settlements, with a regional transport network providing the cohesive links between all parts of the NWRWMG Region. Outside the City of Derry, the NWRWMG Region is characterised by a dispersed settlement pattern. The extensive network of traditional market centres i.e. Coleraine, Limavady and Strabane and villages, small rural settlements, or in a distinctive pattern of dispersed dwellings in the open countryside. These regional centres also have the potential to accommodate population growth.

In 2012 there were about 571km of road in Ballymoney Borough Council, of which none were motorways, approximately 32km were A roads and approximately 120 km were B roads (NINIS 2012a). There is one operational railway line which passes through the Borough, being the Belfast to north coast line (Portrush / Coleraine / Derry / Londonderry), and one railway station, which is at Ballymoney Town. The 2012 farm census showed Ballymoney Borough Council to have 648 farms, which covered a total area of 31,800 ha and employed 2,166 people (NINIS 2012b).

In 2012 there were about 865km of road in Coleraine Borough Council, of which none were motorways and about 115km were A roads (NINIS 2012a). There is one operational railway line which passes through the Borough, being the Belfast to north coast line (Portrush / Coleraine / Derry / Londonderry), and five railway stations located in Portrush (2) Coleraine (2) and Castle rock. The 2012 farm census showed Coleraine Borough Council to have 661 farms, which covered a total area of 34,682 ha and employed 2,238 people (NINIS 2012b).

In 2012 there were about 925km of road in Derry City Council, none of which were motorways and about 74km were A roads (NINIS 2012a). There is one operational railway line which passes through

the Borough, being the Belfast to north coast line (Portrush / Coleraine / Derry / Londonderry), and one railway station, which is at Derry City. There is also one bus station within the council area, which is also at Derry City. The 2012 farm census showed Derry City Council to have 452 farms, which covered a total area of 25,990 ha and employed 942 people (NINIS 2012b).

In 2012 there were about 663km of road in Limavady Borough Council, none of which were motorways and about 72km were A roads (NINIS 2012a). There is one operational railway line which passes through the Borough, being the Belfast to north coast line (Portrush / Coleraine / Derry / Londonderry). There is one railway station in Ballarena and also one bus station within the council area, which is in Limavady Town. The 2012 farm census showed Limavady Borough Council to have 600 farms, which covered a total area of 38,421 ha and employed 1,954 people (NINIS 2012b).

In 2012 there were about 227km of road in Magherafelt District Council of which none were motorways and about 100km were A roads (NINIS 2012a). There is no operational railway line passing through the Borough, however there is one bus station within the council area at Magherafelt Town. The 2012 farm census showed Magherafelt District Council to have 1,219 farms, which covered a total area of 47,518 ha and employed 3,674 people (NINIS 2012b).

In 2012 there were about 525km of road in Moyle District Council, none of which were motorways and about 79km were A roads (NINISa, 2012). There are no operational railway lines which pass through the Borough and there are no main bus stations within the council area. The 2012 farm census showed Moyle District Council to have 550 farms, which covered a total area of 38,044 ha and employed 1,154 people (NINIS 2012b).

In 2012 there were about 1,391km of road in Strabane District Council, of which none were motorways and about 35km were A roads (NINIS 2012a). There are no operational railway lines which pass through the District, and there are no main bus stations within the council area. The 2012 farm census showed Strabane District Council to have 1,209 farms, which covered a total area of 67,251ha and employed 3,828 people (NINIS 2012b).

The North-West Gas pipeline (Belfast to Derry) runs through the NWRWMG region, from south of Rasharkin in Ballymoney BC, through Coleraine BC and Limavady BC and ends in Derry/ Londonderry. This gas is used both commercially and domestically. There is one power station within the NWRWMG region, being the gas fired power station at Coolkeeragh in Derry / Londonderry

There is one commercial port within the NWRWMG region, being Londonderry Port and Harbour. There are also many smaller marinas, jetties and slipways along the coastline of the NWRWMG region. The NWRWMG region also has one airport being in City of Derry Airport in Eglinton, Co. Derry

There are approximately 2 operational reservoirs, 1 drinking water lake, 16 drinking water rivers, and 2 operational boreholes within the NWRWMG region. It is of particular importance that these sources of potable water are not impacted upon by waste management activities.

5.2.8 SOILS, GEOLOGY AND LAND USE

5.2.8.1 Soils and Agriculture

The AFBI Soil Survey in Northern Ireland has identified 308 different soil series (each over 50 hectares in area) in Northern Ireland, developed from 97 soil parent materials. Free draining soil types, such as shallow rocky soils make up 9% of the land area, Brown Earths comprise 13% and Podzols 4%. Poorly draining soils or Gleys comprise 56% of the soil types in Northern Ireland; Peat 14% and 4% is comprised of organic alluvium, lake deposits and other alluvial deposits.

Approximately 75% of the total Northern Ireland land area of 1.35 million hectares is in agricultural use. A total of 284,693 ha of land in the NWRWMG Region is farmed. Grassland predominates within and occupies approximately 78% of the agricultural land area. Approximately 29% of Northern Ireland total crop production is carried out within the NWRWMG region. Crop production is predominately found in Strabane, Magherafelt, Limavady and Moyle with 23.9%, 16.8%, 13.3% and 13.3% of the NWRWMG Region's total[1].

5.2.8.2 Geology

The drift geology of the North West Region is predominately Glacial Till (or Bounder Clay), with areas of Glacial Outwash Sands around the Sperrin Mountains. There are also significant deposits of these materials in the east of the region to the north of Ballymena, and an area of glacial lake deposits is present in the north of the region near Coleraine.

The solid geology of the north west region is mainly metamorphic and igneous rock formations. Sedimentary rocks also underlie the region on a more local scale. These strata are also dissected by a major group of regional faults trending south west to north east. To the west of the region the area comprises of a complexly folded and faulted sequence of metamorphosed mudstones and sandstones, with localised outcrops of quartzites and limestones. The central area of the region is underlain in the south, around Magherafelt, by a complex of igneous rocks, known as "Tyrone Pluton". In the north, the area is mainly underlain by Carboniferous sedimentary sandstone which runs in a broad band extending from Magherafelt northwards to the coastal fringes of Lough Foyle. Finally in the east of the region, towards the escarpment of the Antrim Plateau, the Carboniferous strata are traditionally overstepped by sedimentary sandstone and mudstone formations and beneath the Antrim

[1] The Agricultural Census in Northern Ireland June 2011, DARD.

http://www.dardni.gov.uk/agric-census-in-ni-2011.pdf

plateau the sedimentary rocks are extensively overlain by the Tertiary Basalt formations that reflect a thick sequence of lava flows.

5.2.8.3 Hydrogeology

The west of the region around Strabane and Derry is underlain by aquifers described as weakly permeable. These formations have negligible permeability and are generally regarded as not containing groundwater in exploitable quantities. They are generally comprised of Lower Lias, Rhaetic and Mercia Mudstone, Permian Marls, Silurian and Ordovician, Precambian and intrusive igneous rocks. The areas in the north east of the region, around Ballymoney, are also underlain by these types of aquifers. The central and eastern areas of the region are predominantly underlain by moderately permeable aquifers. These aquifers are generally those that contain fractured or potentially fractured rocks which do not have a high primary permeability, or other formations of variable permeability. These aquifers are generally comprised of: blown sand and raised beach deposits, glacial sand and gravel, alluvium, Lough Neagh clays, Tertiary basalts, Carboniferous rocks excluding the Upper and Lower Limestone and the Devonian.

5.2.8.4 Groundwater Vulnerability

Groundwater vulnerability within the study area generally ranges from high to low (BGS, 2005) . The north western and far north eastern area of the region, covering mainly Moyle, Strabane, Derry and Limavady, is mainly of high vulnerability (class 4). This groundwater high vulnerability category can be further sub-divided into five sub-units depending on the nature of the pathway. Vulnerability category 4 is generally described as "Vulnerable to those pollutants not readily adsorbed or transformed." The middle and north of the study area, covering mainly Ballymoney, Coleraine, Magherafelt and the west of Moyle, is generally of low groundwater vulnerability. This category 2 is generally described as "Vulnerable to some pollutants, but only when continuously discharged/leached." Areas of lowest vulnerability (category 1) exist in the region, centred around the towns of Coleraine and Ballymoney, while pockets of areas of highest vulnerability (category 5) are spread mainly around the western areas of the region, amongst areas of high vulnerability.

5.2.8.5 Drainage

As much of the lowland area of the region is underlain by clay-rich glacial deposits of low permeability, many surface watercourse gradients are often very gentle in the lower course, and in areas where no artificial improvements have been made poor land drainage can restrict land use. The ‘basket of eggs’ topography produced by the drumlin swarms has impeded local drainage in some low lying areas, though modern drainage solutions have overcome this to allow agriculture and other development.

Another notable feature of the drainage pattern in the east of the NWRWMG is that much of it feeds inward and passes through Lough Neagh. This inward drainage is now represented by the catchment of the River Bann and its tributaries, which drain 38% of the land area of Northern Ireland and a

portion of the NWRWMG Region. In the west of the region the River Foyle flows from the confluence of the rivers Finn and Mourne at Strabane to the city of Derry where it is discharged into Lough Foyle draining much of the Sperrins and mountains of Donegal across the border.

5.2.8.6 Land Use

The Land Cover Database for 2000 (LC2000) shows the land cover in the NWRWMG region to be mainly made up of the following land cover types:

- Improved Grassland – 43.5%
- Acid Grassland – 12.1%
- Neutral Grassland – 8.7%
- Open Dwarf Shrub Heath – 6.6%
- Bogs – 6.4%
- Arable Cereals – 5.9%
- Coniferous Woodland – 5.5%
- Dense Dwarf Shrub Heath – 3.4%
- Suburban/Rural Development – 2.4%

It is unlikely that any potential measures from the waste management plan will significantly alter the land cover within the region, as the measure would need to be of such a large size to impact the overall land cover proportions that they are likely to be impractical. Any potential waste management measures should however be planned to ensure they blend with the land cover rather than contrasting it.

5.3 EVOLUTION OF THE ENVIRONMENT IN THE ABSENCE OF THE PLAN

The previous SEA for the NWRWMG WMP detailed the evolution of environment in the absence of the Plan as follows:

The Waste Management Plan, which is subject to statutory review, needs to be adopted and implemented to comply with national and EU legislation and to allow waste policy and waste targets to be achieved. The Reviewed Plan, assesses the current situation, takes into account progress since the previous plan, and recent legislation.

In the absence of a Reviewed Plan, the policies and targets set in 2000, would be continued to be used to manage waste in the North West region. In this situation, District Councils would also still have an obligation to provide to waste management services in order to comply with the Waste and Contaminated Land (Northern Ireland) Order 1997.

Without a Review of the Waste Management Plan current arrangements for the management of wastes within the North West region include:

- A heavy reliance on landfill for all waste streams;
- Limited recycling and recovery;
- Export of a large percentage of hazardous wastes to GB;
- Unregulated wastes management within the agricultural industry.
- The environmental consequences of these arrangements are as follows:
- High Greenhouse Gas emissions from landfilling;
- Potential impact on soil, water and air, including high amounts of land spreading of agricultural wastes;
- Continued heavy use of virgin materials.

However, the proposed arrangements of the Reviewed North West Waste Management Plan include the following measures which will provide a framework for future wastes management within the North West Region and will reduce the potential environmental consequences of the implementation of the North West Waste Management Plan.

- Waste Prevention;
- Increased materials recovery;
- Residual waste treatment with energy recovery;
- Introduction of Anaerobic Digestion for farm manures and slurries;
- Disposal of agricultural wastes at licensed waste management facilities.

As the Plan has been adopted previously in 2002 and reviewed in 2006 the evolution of the environment in the absence of the Plan cannot be completely assessed, as the proposed waste management measures have been implemented or are being implemented. If the current Plan revision (2013 - 2020) were not to be implemented there is the potential for the stalling of waste management activities and the danger of the NWRWMG councils not meeting their recycling and recovery rates for Local Authority Collected Municipal Waste. The waste management activities of the region would not be able to evolve with the changing waste volumes and compositions, which would inevitably lead to a limit for recovery and recycling of materials. It is now being realised around the world that natural resources are finite and that there will at some point in time be a scarcity of resources. Northern Ireland does not have an abundance of natural raw materials, therefore the recovery and reuse of resources is imperative for the future. As far as material assets are concerned it is therefore important that the NWRWMG WMP (2013 - 2020) is implemented.

By not implementing the third review of the waste management plan there are unlikely to be significant impacts upon biodiversity, flora and fauna, water, air and climate, heritage, landscape, soils and landuse. Impacts are thought to be unlikely as the previous incarnations of the Plan are already adopted and the measures are being implemented. The current Plan (2013 - 2020) is offering

methods for continuation of existing measures, and the implementation of the previously assessed measures.

6 REVIEW OF RELEVANT PLANS, PROGRAMMES AND POLICIES

6.1 INTERACTION WITH OTHER RELEVANT PLANS AND PROGRAMMES

As part of the SEA process the context of the NWRWMG Waste Management Plan 2013-2020 must be established with regard to other plans and programmes that have been adopted at International, European and National Levels. In particular the interaction of the environmental protection objectives and standards included within these plans and programmes with the WMP requires consideration.

Tables 6.1 to 6.4 summarise the findings of a review of environmental plans and programmes, adopted at International, European Community or Member State level, which would be expected to influence, or be influenced by, the WMP.

Table 6.1: Preliminary Review of Legislations, Plans, Policies and Programmes – International

Topic	Title	Summary of Objectives
Biodiversity	UN Convention on Biological Diversity (1992)	Objectives include the maintenance and enhancement of Biodiversity.
	The Ramsar Convention The Convention on Wetlands of International Importance (1971 and amendments)	Objectives include protection and conservation of wetlands, particularly those of importance to waterfowl as Waterfowl Habitat.
Climate	UN Kyoto Protocol The United Nations Framework Convention on Climate Change (UNFCCC) Kyoto Protocol 1997	Objectives seek to alleviate the impacts of climate change and reduce global emissions of GHGs.
Cultural Heritage, including Architectural and Archaeological Heritage	The World Heritage Convention United Nations Convention Concerning the Protection of the World Cultural and Natural Heritage (Paris 1972)	Objectives seek to ensure the identification, protection, conservation, presentation and transmission to future generations of the cultural and natural heritage and ensure that effective and active measures are taken for these.
Sustainable Development	Agenda 21 (1992)	Agenda 21 is a comprehensive action plan which works to promote sustainable development at a local and regional level by taking into account environmental protection in the development process.
Water	The London Protocol 1996	The "Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter 1972", the "London Convention" for short, is one of the first global conventions to protect the marine environment from human activities and has been in force since 1975. Its objective is to promote the effective control of all sources of marine pollution and to take all practicable steps to prevent pollution of the sea by dumping of wastes and other matter. In 1996, the "London Protocol" was agreed to further modernize the Convention and, eventually, replace it. Under the Protocol all dumping is prohibited, except for possibly acceptable wastes on the so-called "reverse list".
	OSPAR Convention (1992)	Aiming to prevent and eliminate pollution and protect the maritime area against the adverse effects of human activities. Individual or joint parties are to take all possible steps to

Topic	Title	Summary of Objectives
		prevent and eliminate pollution by dumping or incineration of wastes or other matter; from land-based and offshore sources.

Table 6.2: Preliminary Review of Legislations, Plans, Policies and Programmes - European Union

Topic	Title	Summary of Objectives
Air	The Air Framework Directive Directive on Air Quality Assessment and Management (Framework Directive) (2008//50/EC)	Objectives include the prevention and/or reduction of airborne pollutants for the protection of human health and environment.
	Arsenic, cadmium, mercury, nickel and polycyclic aromatic hydrocarbons in ambient air (2004/107/EC).	This is the fourth daughter directive of the Air Quality Framework Directive and covers polyaromatic hydrocarbons, arsenic, nickel, cadmium and mercury in ambient air.
	Directive on National Emission Ceilings for Certain Atmospheric Pollutants (2001/81/EC)	Objectives seek to limit the national emissions of certain airborne pollutants for the protection of human health and the environment.
Biodiversity	The EU Biodiversity Strategy Communication on a European Community Biodiversity Strategy	Objectives seek to prevent and eliminate the causes of biodiversity loss and maintain and enhance current levels of biodiversity.
	The EU Habitats Directive (92/43/EEC)	Objectives seek to prevent and eliminate the causes of habitat loss and maintain and enhance current levels of biodiversity. The WMP should provide guidelines to ensure that the development of facilities do not impact upon protected areas in terms of natural habitats and wild plants and animals.
	The EU Birds Directive (as modified) (EC/79/409)	Objectives seek to prevent and eliminate the causes of bird species loss and maintain and enhance current levels of biodiversity. The WMP should ensure that development arising as a result of the strategy does not impact upon wild bird habitats.
	The Pan-European Biological and Landscape Diversity Strategy	The principal aim of the Strategy is to find a consistent response to the decline of biological and landscape diversity in Europe and to ensure the sustainability of the natural environment.
Climate	Second European Climate Change Programme (ECCP II) 2005.	Objectives seek to develop the necessary elements of a strategy to implement the Kyoto protocol.
	Adapting to climate change in Europe – options for EU action {SEC (2007) 849}	Objective is to kick-start a Europe-wide public debate and consultation on how to take forward possible avenues for action in adapting to climate change at EU level.
	EU Strategy on Adaptation to Climate Change (EU 2013).	Complementing the activities of Member States, the strategy supports action by promoting greater coordination and information-sharing between Member States, and by ensuring that adaptation considerations are addressed in all relevant EU policies. The EU Adaptation Strategy focuses on three key objectives: Promoting action by Member States, 'Climate-proofing' action at EU level and Better informed decision-making.
Cultural Heritage, including Architectural	Convention for the Protection of the Archaeological Heritage of Europe (revised) (Valletta 1992)	Objective is to protect the archaeological heritage as a source of the European collective memory and as an instrument for historical and scientific study.

Topic	Title	Summary of Objectives
and Archaeological Heritage	Convention for the Protection of the Architectural Heritage of Europe (Granada 1985)	Objectives seek to provide a basis for protection of architectural heritage and are a means for proclaiming conservation principles, including a definition of what is meant by architectural heritage, such as monuments, groups of buildings and sites. The Convention also seeks to define a European standard of protection for architectural heritage and to create legal obligations that the signatories undertake to implement.
Landscape	European Landscape Convention (ETS No. 176), Florence, 20 October 2000	The Convention promotes the protection, management and planning of European landscapes and organises European co-operation on landscape issues.
Sustainable Development	EU Integrated Pollution Prevention and Control (IPPC) Directive (96/61/EC)	This Directive introduces the concept of integrated pollution prevention and control (IPPC) for the activities listed in the Directive. It sets out measures designed to prevent or reduce emissions in air, water and land from these activities in order to ensure a high level of protection for the environment as a whole.
	The EU 6th Environmental Action Plan, September 2002	The programme establishes the environmental priorities for the EU for the next ten years, identifying four areas for priority action; 1. Climate Change, 2. Nature and Biodiversity, 3. Environment, Health and Quality of Life, and 4. Natural Resources and Waste. The Programme provides the environmental component of the Community's strategy for sustainable development : placing Environment policy in a broad perspective, also considering economic and social aspects. The link is made between environment and European objectives for growth, competitiveness and employment.
	EU Sustainable Development Strategy, May 2001	The EU Sustainable Development Strategy published in June 2001 is comprised of two main parts. The first focuses on a number of key unsustainable trends that pose serious threats to our current and future well-being. It proposes headline objectives and a series of policy measures. The priorities are to: ▪ combat climate change, ▪ ensure sustainable transport, ▪ address threats to public health, ▪ manage natural resources more responsibly and stop biodiversity decline, ▪ combat poverty and social exclusion, and ▪ meet the challenge of an ageing population. The second, more ambitious part of the strategy revises the way that policies are made. It calls for a new approach to policy-making to ensure that the EU's economic, social and environmental policies mutually reinforce each other.
	EC Environmental Liability Directive (2004/35/EC)	This establishes a common framework for liability with a view to preventing and remedying damage to animals, plants, natural habitats and water resources, and damage affecting the land. The liability scheme applies to certain specified occupational activities and to other activities in cases where the operator is at fault or negligent. The public authorities are also responsible for ensuring that the operators responsible take or finance the necessary preventive or remedial measures themselves. The WMP should aim to prevent environmental damage to habitats and species, water resources and land contamination.
	The Gothenburg Strategy (2001) Communication from the Commission on "a Sustainable Europe for a Better World"	Objectives seek to make the future development of the EU more sustainable. Informs the 6th EAP and the Irish sustainable development strategy.

Topic	Title	Summary of Objectives
	The SEA Directive (2001/42/EC)	Objective is to provide for a high level of protection of the environment and to contribute to the integration of environmental considerations into the preparation and adoption of plans and programmes with a view to promoting sustainable development, by ensuring that, in accordance with this Directive, an environmental assessment is carried out of certain plans and programmes which are likely to have significant effects on the environment. Under the SEA Directive, the NWRWMG Waste Management Plan would require an SEA.
	Roadmap to a Resource Efficient Europe (COM(2011) 571)	Outlines how we can transform Europe's economy into a sustainable one by 2050. It proposes ways to increase resource productivity and decouple economic growth from resource use and its environmental impact. It illustrates how policies interrelate and build on each other.
	The EIA Directive (2011/92/EU)	Objective is to require Environmental Impact Assessment of the environmental effects of those public and private projects, which are likely to have significant effects on the environment.
Waste	Animal By- Products Regulations (EC 1774/2002)	This Regulation sets out detailed rules for the collection, transport, storage, handling, processing, use and disposal of animal by-products, to prevent them from becoming a risk to animal or public health. They also provide details on the marketing, export and transit of animal by-products and those products derived from them.
	EU Landfill Directive (99/31/EC)	Sets targets for the reduction of biodegradable waste sent to landfill as 75% of the 1995 level by 2010, 50% of the 1995 level by 2013 and 35% of the 1995 level by 2020. The aim of the Landfill Directive is to provide measures, procedures and guidance to prevent or reduce as far as possible the negative effects on the environment from landfill waste. This is to be implemented through changing the way waste is disposed and progress up the waste management hierarchy achieved, through the minimisation of waste being sent to landfill.
	EU Waste Framework Directive (/98/EC)	The Waste Framework Directive (/98/EC) is the overarching legislative framework and is of particular significance to the development of the Plan. It provides a foundation for sustainable waste management practice and defines waste. This Directive sets out measures to minimise the negative effects of the generation and management of wastes on human health and the environment and aims to reduce the use of resources. A key component of the revised WFD is the new Waste Hierarchy, the primary purpose of which is to, minimise adverse environmental effects from waste and to increase resource efficiency in waste management and policy. The revised WFD also contains a requirement for the separate collection of recyclables, at least paper, metal, glass and plastic by 2015 in order to optimise recycling. In addition, the WFD also requires Member States to take measures, as appropriate, to encourage the separate collection of bio-waste with a view to composting and digestion of biowaste. In order to move towards a recycling society with a high level of resource efficiency the revised WFD also implements new targets for the reuse and recycling of materials: ▪ To achieve a recycling rate of 50% (including preparing for reuse) of household waste by 2020; and ▪ To achieve a recovery rate of 70% (including preparing for reuse, recycling and other material recovery) for all non-hazardous construction and demolition waste by 2020.

Topic	Title	Summary of Objectives
	EU Waste Incineration Directive (2000/76/EC)	The aim of the Directive is to prevent or, where that is not practicable, to reduce as far as possible negative effects on the environment caused by the incineration and co-incineration of waste. In particular, it should reduce pollution caused by emissions into the air, soil, surface water and groundwater, and thus lessen the risks which these pose to human health. This is to be achieved through stringent operational conditions and technical requirements and by setting up emission limit values for waste incineration and co-incineration plants within the Community.
	EU End of Life Vehicles Directive (2000/53/EC)	The ELV Directive aims to reduce the environmental impacts of vehicles (cars and vans up to 3.5 tonnes) by introducing higher environmental standards for the treatment and dismantling of vehicles when they are scrapped. Prevention of waste from vehicles is the first priority of this Directive. In addition, re-use, recycling and other forms of recovery should be encouraged to reduce the disposal of waste.
	EU Hazardous Waste Directive (2001/573/EC)	This Directive ensures that different categories of hazardous waste, and hazardous/non-hazardous waste, are not mixed during disposal, recovery, collection or transport. Where wastes are already mixed, separation must be effected where technically and economically feasible.
	EU Packaging and Packaging Waste Directive (94/62/EC as amended by Directive 2004/12/EC)	This Directive harmonises national measures concerning the management of packaging and packaging waste. To this end the Directive lays down measures aimed at preventing the production of excess packaging waste, reusing, recycling and other forms of recovering packaging waste. It establishes percentage targets for the recovery of packaging waste and the essential requirements that all packaging must meet.
	EU Waste Electrical and Electronic Equipment Directive (2002/96/EC), as recast by 2012/19/EU	The WEEE Directive (Waste Electrical and Electronic Equipment) aims to conserve landfill and support more sustainable development by providing an impetus to boost recycling. Electronic and electrical manufacturers and importers will be most affected by the Directive and will be required to take responsibility for treating and recycling their products when they become waste. The Directive does not just apply to new products. Producers will be made responsible collectively for goods already on the market.
	EU Batteries and Accumulators Directive (2006/66/EC)	This Directive aims to minimise the negative impacts of batteries and accumulators on the environment and also harmonising requirements for the smooth functioning of the internal market. To achieve these objectives, the Directive introduces measures to prohibit the marketing of some batteries containing hazardous substances. It contains measures for establishing schemes aiming at high level of collection and recycling of batteries with quantified collection and recycling targets. The Directive sets out minimum rules for producer responsibility and provisions with regard to labelling of batteries and their removability from equipment.
	Industrial Emissions Directive (Integrated Pollution Prevention and Control) (2010/75/EU)	The Industrial Emissions Directive is the successor of the IPPC Directive and in essence is about minimising pollution from various industrial sources throughout the European Union. Operators of industrial installations operating activities covered by Annex I of the IED are required to obtain an integrated permit from the authorities in the EU countries.
	Transfrontier Shipment of Waste Regulations 2007 as amended by the Transfrontier Shipment of Waste (Amendment) Regulations	Set out procedures for the movement of all waste materials within and outside the EU. Made in accordance with and deal with the enforcement of Regulation (EC) 1013/2006 on shipments of waste, which sets out details for the supervision and control of shipments of waste. Covers the use of sewage sludge from sewage plants, septic tanks and other treatment installations in any commercial crops including stock-rearing. Certain restrictions are put on the use of sewage sludge in agriculture and producers of such sewage sludge are to provide certain information to the users.

Topic	Title	Summary of Objectives
	The Mining Waste Directive (2006/21/EC)	Sets out measures, procedures and guidance to prevent and reduce the adverse effects on the environment and human health through the management of waste from the extractive industries. This includes waste from prospecting, extraction, treatment and storage of mineral resources, as well as the working of quarries.
	The Sewage Sludge Directive (1986/278/EEC)	Regulates the use of sewage sludge in agriculture in such a way as to prevent the harmful effects on soil, vegetation, animals and man, thereby encouraging the correct use of such sludge.
Water	Marine Strategy Framework Directive (2008/56/EC)	The Marine Directive aims to achieve Good Environmental Status (GES) of the EU's marine waters by 2020 and to protect the resource base upon which marine-related economic and social activities depend. It is the first EU legislative instrument related to the protection of marine biodiversity, as it contains the explicit regulatory objective that "biodiversity is maintained by 2020", as the cornerstone for achieving GES. The Directive enshrines in a legislative framework the ecosystem approach to the management of human activities having an impact on the marine environment, integrating the concepts of environmental protection and sustainable use.
	The Water Framework Directive (2000/60/EC)	Objectives seek to maintain and enhance the quality of all surface waters in the EU. The WMP should ensure that proposed waste management facilities do not result in a reduction in water quality or the deterioration of wetlands.
	Groundwater Directive (2006/118/EC)	This Directive establishes a regime, which sets underground water quality standards and introduces measures to prevent or limit inputs of pollutants into groundwater.
	EU Floods Directive (2007/60/EC)	The Floods Directive applies to river basins and coastal areas at risk of flooding. With trends such as climate change and increased domestic and economic development in flood risk zones, this poses a threat of flooding in coastal and river basin areas.
	Bathing Water Directive (2006/7/EC)	The overall objective of the revised Directive remains the protection of public health whilst bathing, but it also offers an opportunity to improve management practices at bathing waters and to standardise the information provided to bathers across Europe. The WMP should provide guidelines to ensure that there is no impact on bathing waters.
	Drinking Water Directive (98/83/EC)	The primary objective is to protect the health of the consumers in the European Union and to make sure the water is wholesome and clean.
	EC Shellfish Water Directive (2006/113/EC)	Seeks to protect or improve shellfish waters identified by Member States in order to support shellfish life and growth and thus contribute to the high quality of edible shellfish products. The WMP should provide guidelines to ensure that the development of facilities do not impact on shellfish waters.
	The EU Freshwater Fish Directive (78/659/EEC)	Objectives seek to protect those fresh water bodies identified by Member States as waters suitable for sustaining fish populations. For those waters it sets physical and chemical water quality objectives for salmonid waters and cyprinid waters. The WMP should provide guidelines to ensure that the development of facilities do not impact upon freshwater bodies and fish populations.

Topic	Title	Summary of Objectives
	Urban Wastewater Treatment Directive 91/271/EEC. Amended under Directive 98/15/EEC	The primary objective is to protect the environment from the adverse effects of discharges of urban wastewater, by the provision of urban wastewater collecting systems (sewerage) and treatment plants for urban centres. The Directive also provides general rules for the sustainable disposal of sludge arising from wastewater treatment.

Table 6.3: Preliminary Review of Legislations, Plans, Policies and Programmes – Northern Ireland

Topic	Title	Summary of Objectives
Air	UK Air Quality Strategy for England, Scotland, Wales and Northern Ireland 2007	Sets out a comprehensive strategic framework for air quality policies, and establishes Air Quality Objectives for key air pollutants. The WMP should aim to improve air quality and meet the objectives set out within the Strategy.
	Air Quality Standard Regulations (NI) 2007 (SR No. 265 of 2007)	Transposes the limit values required by EU Daughter Directives on Air Quality into NI law
	Air Quality Standard Regulations (NI) 2010 (SR No. 188 of 2010)	Transposes the limit values required by EU Daughter Directives on Air Quality into NI law
	Air Quality Limit Value Regulations (NI) 2003 (SR No. 2121 of 2003) and amendments.	Sets out air quality limit or guide values for specified pollutants to be achieved by local authorities.
	The Environment (NI) Order 2002	Places a duty on district councils to periodically review and assess their air quality, and, where necessary, to declare an Air Quality Management Area and corresponding Air Quality Action plan.
Biodiversity	NIEA Strategic Priorities 2012 – 2022 Our Passion Our Place	This plan sets out the NIEA strategic direction over the next ten years to bring together the diverse roles of the NIEA and guide corporate business planning. It is aimed at everyone who works for the NIEA and with the NIEA to help understand what the NIEA do and where they fit. It describes the context for their work, who they are, what they do and how they deliver, their strategic goals and actions under four priority themes – Healthy Natural Environment, People and Places, Sustainable Economic Growth, Using Our Resources Well. Finally it sets out how the NIEA will measure and monitor success.
	Delivering the Northern Ireland Biodiversity Strategy 2002-2005 and 2005-2009	The Northern Ireland Biodiversity Group's first report concentrated on the delivery mechanisms for implementing the Northern Ireland Biodiversity Strategy and identified a large number of aspects by which the operation could be improved. The present report devotes one chapter to mechanisms, or components for delivery, and then assesses how each of the original Strategy recommendations has progressed and provides commentary. This is followed by an appraisal of the actual outcomes for biodiversity in Northern Ireland. Finally, NIBG examines the issue of climate change and its importance for biodiversity conservation in Northern Ireland. Throughout the report, NIBG makes recommendations with the aim of improving progress towards Northern Ireland's 2016 target of halting biodiversity loss.

Topic	Title	Summary of Objectives
	UK National Ecosystem Assessment (2011) The UK National Ecosystem Assessment Technical Report.	Provides a comprehensive overview of the state of the natural environment in the UK and a new way of estimating our national wealth. Northern Ireland is covered in Chapter 18.
	UK Biodiversity Action Plan	Sets out the UK Government's response to the Convention on Biological Diversity (CBD) signed in 1992 and describes the UK's biological resources and commits a detailed plan for the protection of these resources. Includes Species Action Plans, Habitat Action Plans and Local Biodiversity Action Plans with targeted actions.
	Northern Ireland Biodiversity Strategy 2002 (including NI Species and Habitat Action Plans and Departmental Biodiversity Implementation Plans)	Northern Ireland Biodiversity Group (NIBG) identified 15 major issues affecting Biodiversity in Northern Ireland. The Northern Ireland Biodiversity Strategy 2002 is the Government response to the publication.
	The Environment (Northern Ireland) Order 2002 (SI No. 3153 of 2002)	Provides much of the legislative basis for the protection of sites of importance to nature conservation in Northern Ireland. The Order provides for such areas to be designated as Areas of Special Scientific Interest (ASSIs).
	The Nature Conservation and Amenity Lands (Northern Ireland) Order (NCALO) 1985 as amended	Legislates for National Nature Reserves (NNRs), Marine Nature Reserves (MNRs) and Local Nature Reserves (LNRs). Note, MNRs are now repealed by the Marine Act (NI) 2013, becoming Marine Conservation Zones (MCZs).
	The Conservation (Natural Habitats) Regulations (Northern Ireland) 1995 (SR No. 380 of 1995) and amendments.	Implements the Habitats Directive in NI.
	Natural Heritage Strategic Plan 2003. To be updated with Natural Vision and Heritage Strategic Plan 2020.	Sets out the direction for conserving the natural heritage of Northern Ireland and includes the following objectives: Biodiversity of Northern Ireland stabilised or enhanced ▪ Invasive introduced species and other genetic material brought under control and no further establishments in the wild; ▪ An accessible record of the distribution and abundance of wild species of all taxonomic groups established and maintained, so as to enable a balanced monitoring and conservation of biodiversity; and, ▪ The use, misuse and management of plants and animals requiring special protection. The DoE intends to ensure that the biodiversity of Northern Ireland is stabilised or enhanced.
	The Wildlife (NI) Order 1985 as amended by the Wildlife and Natural Environment Act (Northern Ireland) 2011.	This Order aims to protect wild animals, birds, plants and their habitats. It makes it an offence to kill, injure, disturb, take or sell specially protected wild animals, all wild birds, their nests and eggs, and to uproot, pick, or sell specially protected plants. Amendment places a statutory duty on government and public bodies to further the conservation of biodiversity.
Climate	Northern Ireland Climate Change Risk Assessment (2012)	The Northern Ireland CCRA played a key part in helping to develop a Northern Ireland Adaptation Programme, which identifies actions and activities in response to priority risks and constitute the initial steps in preparing for the impacts of climate change.

Topic	Title	Summary of Objectives
	UK Climate Change Programme	This Programme provides details and national targets for the reduction of greenhouse gas emissions in accordance with the Kyoto agreement, the goal of the programme is a 20% reduction of the 1990 CO_2 emissions by 2010. It also aims to protect and where possible enhance, the UK's economic standing, tackle social exclusion and health risks.
	Northern Ireland Greenhouse Gas Emission Reduction Plan (2011)	A key objective is to reduce the greenhouse gas emissions that can have a harmful effect on our atmosphere. The Executive has shown leadership in this area by setting a Programme for Government target to reduce greenhouse gas emissions by 25% below 1990 levels by 2025.
	UK Climate Change Act 2008	The Climate Change Act, the first of its kind in any country, set out a framework for moving the UK to a low-carbon economy. The key component of the legislation requires a mandatory 60% cut in the UK's carbon emissions by 2050.
Cultural Heritage, including Architectural and Archaeological Heritage	Historic Monuments and Archaeological Objects (Northern Ireland) Order 1995	This Order enables the protection of monuments through State Care and Scheduling, the regulation of excavation activities and the reporting of finds.
	Planning (NI) Order 1991	Article 42 of the Order places a duty on the Department of the Environment (DoE) to compile lists of buildings of special architectural or historic interest. The Order gives the Department powers to influence change to these structures through Listed Building Consent, grant aid and enforcement against unauthorized works. The statutory listing page provides more information on the specific articles of the order which apply.
Environment	Environmentally Sensitive Areas Designation Order (Northern Ireland) 2005. SR No. 276 of 2005.	Aims to conserve and enhance designated natural beauty areas, to conserve flora and fauna and geological and physiographical features of those areas; and to protect buildings and other objects of archaeological, architectural or historic interest in those areas.
	The Planning (Environmental Impact Assessment) Regulations (Northern Ireland) 1999. SR No. 73 of 1999.	Defines activities that require an Environmental Impact Assessment, and the preferred methods and contents of the assessment.
	Environment (Northern Ireland) Order, 2002 SI 3153 (including Amendments)	The main aim of this Order is to make provision for a variety of environmental issues, with specific regard to pollution prevention and control, air quality and Areas of Special Scientific Interest (ASSI's).
Planning	NI Programme for Government 2011 - 2015	The Programme for Government identifies the actions the Executive will take to deliver its number one priority – a vibrant economy which can transform our society while dealing with the deprivation and poverty which has affected some of our communities for generations.
	The Regional Development Strategy 2025 – Shaping Our Future	Offers a strategic and long-term perspective on the future development of Northern Ireland up to the year 2025
	PPS 1 - 21	Policies on land-use and other planning matters that apply to the whole of Northern Ireland.
Sustainable Development	UK Sustainable Development Strategy	Aims to achieve sustainable development which: ▪ Meets the needs of everyone; ▪ Does not damage the environment; ▪ Uses resources in a sustainable manner; and ▪ Encourages economic growth and employment.
	Environmental Assessment of Plans and Programmes Regulations (Northern Ireland) 2004	These Regulations came into force on 22 July 2004. They deal with the assessment of environmental plans and programmes, and implement EC Directive 2001/42/EC, the SEA Directive, on the assessment of the effects of certain plans and programmes on the environment.

Topic	Title	Summary of Objectives
	Northern Ireland Executive Sustainable Development Strategy 2010. 'Everyone's Involved.' (and Implementation Plans)	Everyone's Involved is different from the previously produced Strategy (2006). The OFMDFM believe that it has the potential to act effectively as an enabling mechanism for the wider sustainable development agenda and, in particular, to inform and assist the development of the second Sustainable Development Implementation Plan.
Water	The Surface Waters (Dangerous Substances) (Classification) Regulations (NI) 1998 (SR 397 of 1998)	Prescribe a system of classifying the quality of inland freshwaters, coastal waters and relevant territorial waters. It creates a system for classifying waters according to the presence in them of concentrations of the dangerous substances listed in the Schedules. Sampling requirements are prescribed in regulation 4. Regulation 5, by modifying section 4C of the Water Act (Northern Ireland) 1972, requires (and enables) the Department of the Environment to establish water quality objectives for those dangerous substances by applying the classifications prescribed in the Regulations.
	The Groundwater Regulations (Northern Ireland) 1998	This legislation aims to prevent pollution of groundwater. Before certain listed substances including used sheep dips and waste pesticides are disposed of by land spreading, authorisation must be obtained from the Northern Ireland Environment Agency (NIEA).
	The Water (Northern Ireland) Order 1999 (No. 662 (N.I. 6))	Contains a number of provisions to combat and prevent pollution affecting waterways and groundwater. It is an offence under the Water Order to make a polluting discharge or deposit either directly or via a drain into a waterway or the underground strata. It is also an offence to make an effluent discharge from a septic tank or treatment plant into a waterway or a soak-away without the consent of the Department of Environment (DOE).
	The Water Abstraction & Impoundment (Licensing) Regulations (Northern Ireland) 2006	The introduction of this legislation was to fulfil Northern Ireland's obligation to the European Commission under the Habitats and Water Framework Directives and will establish a water resource management, assessment and licensing regime. These Regulations aim to provide a single and consistent environmental risk based approach that covers all abstractions and impoundment operations. These powers will help protect our water environment including protected species and dependent ecosystems and will help deliver efficient and sustainable water usage in Northern Ireland.
	Water Framework Directive (Priority Substances and Classification) (Amendment) Regulations (Northern Ireland) SR 2012/442	These regulations provide a statutory basis for classification schemes in order to support the implementation of Directive 2000/60/EC, establishing a framework for Community action in the field of water policy (the Water Framework Directive).
Waste	The Landfill Regulations (Northern Ireland) 2003 and amendment 2011.	Came into force in January 2004 and aim to make provisions for issuing permits to create and operate a landfill and set out a pollution control regime for landfilling. The Regulations provide the necessary powers to implement the objectives of the Landfill Directive 99/31/EC. The Landfill (Amendment) Regulations 2011 were implemented to ensure all landfill sites in NI comply with the Landfill Directive procedures for closure and aftercare.
	The Landfill Allowance Scheme (Amendment) Regulations (Northern Ireland) 2011	The Northern Ireland Landfill Allowances Scheme (NILAS) came into force on 1st April 2005 and applies to Northern Ireland only. They supplement the Waste and Emissions Trading Act, 2003 by making detailed provisions for the allocation, borrowing, transfer and monitoring of landfill allowances allocated to District Councils. The Landfill Allowances Scheme (Amendment) (Northern Ireland) Regulations, 2005 came into force on 1st March 2006 and

Topic	Title	Summary of Objectives
		provide an amendment to the Landfill Allowances Scheme whereby the level of penalty to which a District Council is liable for failing to meet the landfill diversion targets is reduced.
	Animal By-Products Regulations (Northern Ireland) 2003	The Regulations lay down health rules concerning animal by-products, including fallen animals.
	The Animal By-Products (Enforcement) Regulations (Northern Ireland) 2011 SR 124 (as amended)	These Regulations enforce EU Control Regulations, providing obligations on operators in relation to animal by-products, including obligations as to disposal and use, prohibitions on feeding, and placing on the market.
	The Hazardous Waste Regulations (Northern Ireland) 2005	The purpose of the Hazardous Waste Regulations (Northern Ireland) 2005 is to provide an effective system of control for these wastes and to make sure that they are soundly managed from their point of production to their final destination for disposal or recovery.
	Environmental Protection (Controls on Ozone-Depleting Substances) Regulations (Northern Ireland) 2003	These regulations apply controls on the production, importation, exportation, placing on the market, emission, recovery, recycling and destruction of substances that have an adverse impact on the ozone layer in the upper atmosphere.
	The Producer Responsibility Obligations (Packaging Waste) Regulations (Northern Ireland), 2007 SR 198 (as amended)	The Producer Responsibility Obligations (Packaging Waste) regulations implement the EU directive on packaging and packaging waste. These regulations make packaging producers responsible for recovering and recycling waste packaging.
	End-of-Life Vehicles Regulations 2003	These Regulations came fully into force on 31 December 2003 and apply to England, Scotland, Wales and Northern Ireland. They deal with the vehicle producer's requirements with regard to: the prohibition of certain heavy metals in vehicles, the provision of information, certificates of destruction and imposing a cost for their disposal. The aim of the Regulations is to ensure the proper treatment, recycling and disposal of vehicles which have reached the end of their life, so they do not release hazardous substances which have the potential to pollute the environment.
	Transfrontier Shipment of Waste Regulations,1994	These Regulations came into force on 6 May 1994 in Northern Ireland. These Regulations make provision in relation to Council Regulation (EEC) No 259/93 on the supervision and control of the shipment of waste within, into and out of the European Community and for the purpose of implementing Council Directive 75/442/EEC with regards to imports and exports of waste.
	The Waste and Contaminated Land (Northern Ireland) Order 1997 (No. 2778 (N.I. 19))	Part I of the legislation deals with waste on land, collection and disposal of waste, land contamination by pollution, the control of the use, supply or storage of prescribed substances and articles confers powers to obtain information about potentially hazardous substances. Part II makes provision in relation with prohibition on unauthorised or harmful depositing, treatment or disposal of waste, duty of care, as respects waste, waste management licences, collection, disposal or treatment of controlled waste, special waste and non-controlled waste, other controls on substances, articles or waste, publicity, and registration of carriers of controlled waste.
	The Waste and Emissions Trading Act, 2003.	The main aim of this Act is to meet European Landfill Directive objectives and develop a system for the disposal of biodegradable waste, including biodegradable municipal waste. Within this Act, Government have been allocated landfill allowances to distribute to waste disposal authorities on a yearly basis. Landfill allowances can be bought, traded or sold to allow targets to be met. The DOENI determine how much biodegradable municipal waste can be sent to landfill and it is the responsibility of the allocating authority to ensure that these levels are not exceeded.

Topic	Title	Summary of Objectives
	The Industrial Pollution Control (Northern Ireland) Order 1997 (No. 2777 (N.I. 18))	Aims to prevent or minimise environmental pollution by prescribed substances from certain industrial processes. Best Available Techniques Not Entailing Excessive Cost (BATNEEC) must be used to minimise releases.
	Pollution Prevention and Control Regulations (Northern Ireland) 2003 (SR46 of 2003)	This established Pollution Prevention and Control (PPC) in Northern Ireland and has three tiers of control. Activities listed in Part A of Schedule 1 to the Regulations are subject to an integrated approach controlling a wide range of environmental issues, while Part B and Part C installations are subject to controls on emissions to air only. All industrial installations controlled under the PPC regulations are required to have a permit to operate. Part A and Part B installations are regulated by the Industrial Pollution and Radiochemical Inspectorate (IPRI) of NIEA. Part C activities are regulated by district councils.
	Pollution Prevention and Control (Industrial Emissions) Regulations (Northern Ireland) 2013 (SR160 of 2013)	Directive 2010/75/EU on industrial emissions (integrated pollution prevention and control), known as 'the IED' has been brought into effect by the Pollution Prevention and Control (Industrial Emissions) Regulations (Northern Ireland) 2013. The IED is a recast of the seven previous European Commission Directives covering industrial emissions. A review of these resulted in the merging of the seven existing Directives to ensure clearer environmental benefits and consistent application of Best Available Techniques (BAT) across Member States are achieved. Greater emphasis on the role for BAT reference documents (Brefs) is encouraged and there is extended scope and provisions on soil and groundwater protection. IED also promotes cost-effectiveness and encourages technological innovation to help deliver greater environmental benefits.
	The Waste Regulations (NI) 2011 (SR. 2011/127)	Requires businesses to apply the waste management hierarchy, introduces a two-tier system for waste carrier, broker and dealer registration, establishes waste prevention programmes and amends other legislation.
	Waste Management Licensing Regulations (Northern Ireland), 2003 and Amendments	The Waste Management Licensing Regulations (Northern Ireland) 2003 implement the waste licensing requirements of the Waste and Contaminated Land Order. Northern Ireland Environment Agency is directly responsible for the implementation of these Regulations.
	Litter (Northern Ireland) Order, 1994	The aim of this Order is to make provision for land to be kept clean and clear of litter including the control of littering and dog fouling at any place in the open air. The Order also allows for the specification of litter control areas within District Council Regions. As part of this Order, District Councils must keep a register of all street litter control notices served under the Order. The Order has been amended by the Clean Neighbourhoods and Environment (Northern Ireland) Act 2011.
	Clean Neighbourhoods and Environment (Northern Ireland) Act 2011	The objective of this Act is to improve the quality of the local environment by giving district councils additional powers to deal with litter, nuisance alleys, graffiti and fly posting, abandoned and nuisance vehicles, dogs, noise and statutory nuisance. The Act increases the level and range of on the spot fines as well as the introduction of new fines for a range of offences.
	The Controlled Waste Regulations (Northern Ireland), 2002 (as amended)	These allow Regulations to be made for the treatment of waste of any description and are made in accordance with the Waste and Contaminated Land (Northern Ireland) Order. The Regulations provide definitions of the wastes to be classified under household waste, commercial and industrial waste as well as classifying the types of household waste for which a collection charge may be made by District Councils.

Topic	Title	Summary of Objectives
	The Controlled Waste (Duty of Care) Regulations (Northern Ireland), 2002 SR271 (as amended)	Article 5 of the Waste and Contaminated Land (NI) Order, 1997 imposes a Duty of Care on persons concerned with controlled waste. Controlled waste (as defined by Article 31(1) of the Order describes controlled waste as household, commercial and industrial wastes. Article 31(1) provides for regulations to be made to modify the definition of controlled wastes.
	Controlled Waste (Registration of Carriers and Seizure of Vehicles) Regulations (Northern Ireland), 1999 SR 362	Under the Waste and Contaminated Land (Northern Ireland) Order, 1997, it is an offence not to be registered with the Department of the Environment as a waste carrier. The requirement to register applies to any person who transports controlled waste, which that person had not produced themselves, to or from any place in Northern Ireland in the course of any business with a view to profit.
	The Waste Electrical and Electronic Equipment Regulations 2006 SI 3289 (as amended)	These Regulations transpose the main provisions of Council Directive 2002/96/EC of 27th January 2003 on waste electrical and electronic equipment and aim to reduce the amount of waste electronic and electrical equipment (WEEE) sent to landfill, promote the separate collection, treatment and recycling of WEEE, ensure the safe treatment and disposal of hazardous components; and encourage producers to make products easier to recycle.
	Transfrontier Shipment of Waste Regulations 2007 (SI. 2007/1711)	Sets out rules for shipping waste, including within the European Community and importing and exporting to and from countries outside the EC. Amended in

Table 6.4: Preliminary Review of Legislations, Plans, Policies and Programmes – Transboundary, Regional and Local

Title	Summary of Objectives
Local Air Quality Management Policy Guidance	The guidance is designed to help relevant authorities with their local air management duties. The WMP should aim to improve air quality.
Guidance for Public Bodies on Climate Change in Northern Ireland	A guidance document for public bodies which identifies key areas for action in dealing with climate change. The WMP should aim to reduce greenhouse gas emissions and deal with the impact of climate change, particularly in relation to its effect on the design and operation of landfill sites.
Northern Ireland Biodiversity Strategy	Sets out how the Executive plans to protect and enhance biodiversity in Northern Ireland over the period up to 2016. The WMP should not have a negative impact on biodiversity within the area.
Implementation Plan for 2002/2005 for the Northern Ireland Biodiversity Strategy	Contains a number of actions to ensure that the Biodiversity Strategy is implemented. The NIEA intends to deliver a number of action points including identifying Sites of Local Nature Conservation Importance, ensure that biodiversity is enshrined in planning policy and review opportunities to work with statutory undertakers to achieve biodiversity gains. The WMP should recognise the opportunity to assist in this approach.
Local Biodiversity Action Plans (LBAPs)	These provide an overview of the natural heritage value for each council area and guide where development should go and what enhancement work could be undertaken.

Title	Summary of Objectives
Regional Development Strategy for Northern Ireland 2025	Shaping Our Future: The Regional Development Strategy for Northern Ireland (RDS 2035 'Building a Better Future') was published in March 2012 and informs the spatial aspects of all other strategies. It complements the Sustainable Development Strategy and highlights the contribution that recycling more waste and recovering energy from it can make to a reduction in carbon footprint and Greenhouse Gas Emissions (GHG). The Strategy recognises that managing our waste is a significant part of how we treat our environment and highlights the need to manage waste sustainably. This will be achieved by applying both the waste hierarchy, introduced by the Waste Framework Directive, and the proximity principle when developing treatment or disposal facilities in order to minimise the environmental impacts of waste transport.
Northern Ireland Sustainable Development Strategy	The Northern Ireland Sustainable Development Strategy ('Everyone's Involved') was adopted by the Northern Ireland Executive in May 2010. The Strategy sets out the principles and strategic objectives to ensure socially responsible economic development while protecting the resource base and the environment for future generations.
Regional Transport Strategy 2002-2012	Aims to have a modern, sustainable, safe transportation system which benefits society, the economy and the environment and which actively contribute to social inclusion and everyone's quality of life. The Plan should aim to reduce the number and length of vehicle movements associated with the transport of waste. In addition, the most sustainable method of transportation should be utilised.
Regional Strategic Transport Network Transport Plan 2015	To plan the maintenance, management and development of Northern Irelands Strategic Transport Network. The WMP should take cognisance of the proposed improvements to the transport network in terms of identifying areas of search for waste facilities.
A Planning Strategy for Rural Northern Ireland	This document considers the inter-relationships between town and country and seeks to present a clear vision for the future development of the rural area. This document has largely been superseded by more recent policy and guidance, however, the WMP should generally aim to protect and enhance the natural and man-made environment.
PPS1: General Principles	PPS 1 was published in March 1998 and sets out the general principles that the Department observes in formulating planning policies, making development plans and exercising control of development. The Statement also sets out the key themes that underlie the Department's overall approach to planning across the whole range of land-use topics and provides strategic guidance on issues such as sustainability, the status of various planning documents and environmental assessment.
PPS2: Natural Heritage	Sets out the Department's planning policies for the conservation, protection and enhancement of our natural heritage. For the purpose of this Planning Policy Statement, natural heritage is defined as "the diversity of our habitats, species, landscapes and earth science features".
PPS 3: Access, Movement and Parking	This Statement sets out the Department's planning policies for vehicular and pedestrian access, transport assessment, the protection of transport routes and parking. It forms an important element in the integration of transport and land use planning. In addition, PPS3 embodies the Government's commitments to the provision of a modern, safe, sustainable transport system, the improvement of mobility for those who are socially excluded or whose mobility is impaired, the promotion of healthier living and improved road safety. This Policy Statement also takes into consideration the Department's Local Air Quality Management Policy Guidance and 'Investing for Health' a document published by the Department of Health, Social Services and Public Safety (DHSSPS).

Title	Summary of Objectives
PPS6: Planning, Archaeology and the Built Heritage	This statement was published in March 1999 and sets out the Department's Planning Policies for the protection and conservation of archaeological remains and features of the built heritage. The preservation of an archaeological site or monument is a material consideration for the Department in determining planning applications. Within the application, consideration will be afforded to the potential for a proposed development to damage or destroy a site or monument, result in inappropriate change to the setting or whether the existing quality and character of the site or monument would be retained.
PPS11: Planning and Waste Management	This statement was published in December 2002 and sets out the Department's Planning Policies for the development of waste management facilities. PPS11 supersedes Policy PSU 8 (New Infrastructure) and PSU 14 (Waste) of the Planning Strategy for Rural Northern Ireland. It seeks to promote the highest standards in development proposals for waste management facilities. This statement contains a number of policies. It should be noted that PPS 11 is currently under review.
PPS13: Transportation and Land Use	The primary objective is to integrate land use planning and transport by: Promoting sustainable transport choices; Promoting accessibility for all: and, Reducing the need for travel, especially by private car. The Plan should aim to reduce the number and length of vehicle movements associated with the transport of waste. In addition, the most sustainable method of transportation should be utilised.
PPS 15: Planning and Flood Risk	This Statement sets out the Department's planning policies to minimise flood risk to people, property and the environment. It embodies the government's commitment to sustainable development and the conservation of biodiversity. It adopts a precautionary approach to development and the use of land that takes account of climate change and is supportive of the well being and safety of people.
PPS 18 - Renewable Energy	This Statement sets out the Department's planning policy for development that generates energy from renewable resources and that requires the submission of a planning application. The aims and objectives of this Statement are to facilitate the siting of renewable energy generating facilities whilst ensuring protection of the built and natural environment and providing due regard to potential environmental, landscape, visual and amenity impacts.
PPS21: Sustainable Development in the Countryside	PPS 21 sets out planning policies for development in the countryside.
Donegal Waste Management Plan 2000	The Donegal Waste Management has been prepared in order as required under Section 22 of the Waste Management Act 1996 and Waste Management (Planning) Regulations 1997. The Plan sets out arrangements for the management of wastes arising within County Donegal.
Derry Area Plan 2011	The purpose of the Plan is to inform the general public, statutory authorities, developers and other interested bodies of the policy framework and land use proposals that will be used to guide development decisions within the Plan area for the period up to 2011.
Magherafelt Area Plan 2015	The purpose of the Plan is to inform the general public, statutory authorities, developers and other interested bodies of the policy framework and land use proposals that will be used to guide development decisions within the Plan area for the period up to 2015.
Northern Area Plan 2016 (Ballymoney, Coleraine, Limavady & Moyle)	The purpose of the Plan is to inform the general public, statutory authorities, developers and other interested bodies of the policy framework and land use proposals that will be used to guide development decisions within the Plan area for the period up to 2016.

Title	Summary of Objectives
Strabane Area Plan 1986 - 2001	The Strabane Area Plan seeks to inform the general public, statutory authorities, developers and other interested bodies of the policy framework and land use proposals that will be used to guide development decisions within the Plan area.
Shared Horizons: Statements of Policy on Protected Landscapes in Northern Ireland	Sets out the issues associated with the protection and sustainable use of the landscape or countryside and indicates the way in which to address them. Specifically, it seeks to illustrate: Why the protection and management of our special landscapes is important; What Northern Ireland Environment Agency (NIEA) does, both through its own actions and in partnership with others, to mange this resource and facilitate the sustainable use of these areas; What the future plans of the Department are with respect to designating and managing further areas of high landscape quality and reviewing the status of some of the existing areas. The WMP should ensure that detrimental effects on Areas of Outstanding Natural Beauty associated with waste management facilities are avoided or minimised.
North West Neagh Bann River Basin Management Plan	Describes existing condition of waters in the River Basin District, the objectives for improving their condition and the measures to be used to deliver these improvements.
Water Resource Strategy 2002-2030	Outlines the current status of sources and how this water is currently used. It confirms the important roles of Lough Neagh and other reservoirs and highlights the need for rationalisation of many smaller uneconomic resources. It also contains recommendations for meeting estimated demands to 2030. The WMP should reflect the strategy by ensuring that waste facilities such as thermal treatment installations do not put unnecessary demands on the available water supply.
Policy and Practice for the Protection of Groundwater in Northern Ireland	Outlines the approach to protect both groundwater resources and groundwater quality in Northern Ireland. The WMP should consider the implications of proposed waste management facilities on groundwater quality and quantity.
River Basin – Local Management Area Action Plans	Local Management Area Action Plans implement the WFD River Basin Management Plans within the 2010 to 2015 planning cycle. The action plans detail the local measures identified to improve the water environment.
arc21 Waste Management Plan (2006) and draft Plan (2013)	The arc21 Waste Management Plan has been prepared by arc21, in fulfilment of its councils' obligations under Article 23 of the Waste and Contaminated Land (Northern Ireland) Order 1997. The plan sets out the arrangements for the management of controlled wastes arising within the arc21 Region, which includes identifying capacity needs, potential sites and/or siting criteria, and the services needed for the collection, treatment and disposal of wastes. The current draft Plan sets out the arrangements for the management of controlled wastes over the period 2013 to 2020.
Southern Waste Management Partnership (now SWaMP2008) Waste Management Plan (2006) and draft Plan (2013)	The SWaMP Management Plan was prepared in fulfilment of the SWaMP councils' obligations under Article 23 of the Waste and Contaminated Land (Northern Ireland) Order 1997. The WMP outlined how it planned to efficiently manage waste for the Councils it represents with the overall goal of creating a system that 'meets the region's needs and contributes towards economic and sustainable development'. The Plan set out the arrangements for the management of controlled wastes arising within the SWaMP2008 Region over the period 2006 to 2012. The current draft Plan sets out the arrangements for the management of controlled wastes over the period 2013 to 2020.

Title	Summary of Objectives
Northern Ireland Waste Management Strategy 2000 (WMS)	The Vision for this Strategy is of Northern Ireland as a European centre of excellence for resource and waste management. The key objectives of the Strategy are: ▪ To reduce the quantities of waste generated and maximise reuse, recycling and recovery of those materials which enter the waste stream; ▪ To ensure that waste is managed with minimum impact on the environment and public health; ▪ To put in place a framework for preparation of joint Waste Management Plans, and develop an integrated network of regional waste management facilities which are cost effective to the public; ▪ To attract investment, support economic development and create opportunities for increased opportunities for increased employment and wealth creation; ▪ To demonstrate leadership by adopting and promoting more sustainable practices of resource consumption and waste management; ▪ To put in place a regulatory framework which supports those businesses who actively work towards more efficient and sustainable use of resources; and, ▪ To provide the public with increased opportunity to contribute to environmental protection at the individual and household level. The WMP should reduce the quantity of waste sent to landfill and increase levels of reuse and recycling and recovery. In doing so, the management of waste should ensure the highest level of public health and environmental protection.
Waste Management Strategy for Northern Ireland: Towards Resource Management	This Waste Management Strategy highlights the need to increase waste recycling and recovery in a number of ways that include: The renewal of recycling targets, focused awareness campaigns and the possible introduction of incentive schemes. A set of waste stream summaries highlighted in the strategy sets out how to manage your waste. The WMP should minimise waste production and maximise recycling and recovery, promote more sustainable practices, and ensure that waste management facilities have a minimum impact on the environment and public health.
Draft Revised Northern Ireland Waste Management Strategy – Delivering Resource Efficiency	This draft Strategy, which is due to be published in May 2013, is a revision of the current Northern Ireland Waste Management Strategy: Towards Resource Management which was published in March 2006 and set the strategic direction for waste management in Northern Ireland at the time. The Strategy moves the emphasis of waste management in Northern Ireland from resource management (with landfill diversion as the key driver) to resource efficiency, that is, using resources in the most effective way while minimising the impact of their use on the environment. Therefore, this Strategy has a renewed focus on waste prevention (including reuse), preparing for reuse and recycling in accordance with the waste hierarchy. The draft Strategy also includes updated recycling targets. Guidance issued to all three Waste Management Groups in October 2012.
The Northern Ireland Landfill Allowances Scheme – Allocating Authority Guidance for District Councils	Clarifies the Department of the Environment's role in the Northern Ireland Landfill Allowance Scheme, certain aspects of the operation of the scheme and an interpretation of the definition of collected municipal waste. The WMP should take cognisance of the guidance in terms of defining municipal waste and the borrowing and transferring of landfill allowance.
Biodegradable Waste Strategy for Northern Ireland (Draft)	The primary objectives are to: Promote the sustainable management of biodegradable wastes; and, Comply with Northern Ireland's obligations under Articles 5 (1) and 5 (2) of the Landfill Directive. The WMP should aim to reduce the amount of biodegradable waste that goes to landfill.

Title	Summary of Objectives
National Hazardous Waste Management Plan (Ireland)	The Environmental Protection Agency has prepared a revised National Hazardous Waste Management Plan for the Republic of Ireland covering a six-year period from the date of publication (2014-2020). This third Plan is a revision of the National Hazardous Waste Management Plan 2008 - 2012 and sets out the priorities to be pursued over the next six years and beyond to improve the management of hazardous waste, taking into account the progress made since the previous plan and the waste policy and legislative changes that have occurred since the previous plan was published. The objectives of the revised Plan are: • To prevent and reduce the generation of hazardous waste by industry and society generally; • To maximise the collection of hazardous waste with a view to reducing the environmental and health impacts of any unregulated waste; • To strive for increased self-sufficiency in the management of hazardous waste and to minimise hazardous waste export; • To minimise the environmental, health, social and economic impacts of hazardous waste generation and management.
Draft Connacht – Ulster and Eastern – Midlands Regional Waste Management Plan (Ireland)	For the purposes of waste management planning, Ireland is now divided into three regions: Southern, Eastern-Midlands, Connacht-Ulster. The preparation of new regional waste management plans for the regions has been underway since late 2013 following an evaluation of the previous plans which covered ten regions nationally. The regional plans provide the framework for waste management for the next six years and set out a range of policies and actions in order to meet the specified mandatory and performance targets. The plans seek to assist and support the community and local business to develop resource efficiency and waste prevention initiatives.

7 SEA ENVIRONMENTAL OBJECTIVES, TARGETS AND INDICATORS

7.1 INTRODUCTION

The SEA Directive does not require objectives to be developed for the SEA itself, but these are widely used in SEAs to ensure that the appropriate level of consideration is achieved (ODPM, 2005). However, with the SEA for the NWRWMG Waste Management Plan 2013-2020 we will use SEA objectives to test the environmental effects of the Plan and to compare the effects of the alternatives.

7.2 DEVELOPMENT OF STRATEGIC ENVIRONMENTAL OBJECTIVES, TARGETS AND INDICATORS

The SEA objectives, targets and indicators of this environmental report are shown in **Table 7.1** and reflect the nature of the Waste Management Plan. Targets set in this SEA must be attributable to the implementation of the Plan, so they reflect the positive and negative effects.

Environmental indicators are used to track the progress in achieving the targets set in the SEA as well as the Plan itself. The indicators have been selected bearing in mind the availability of data and the feasibility of making direct links between any changes in the environment and the implementation of the Plan.

Table 7.1: Strategic Environmental Objectives, Targets and Indicators

SEA Topic	SEA Objective	SEA Target	SEA Indicators
Biodiversity, Flora & Fauna	**Objective 1** To reduce the environmental impacts	• No damage to protected sites in the NW region • No damage to or displacement of protected species in the NW region • No negative transboundary impacts on biodiversity, flora and fauna	• Status of EU Protected Habitats and Species and status of National Priority Species and Habitats. • Condition of Selection Features in sites designated for nature conservation (SACs, SPAs, Ramsar sites and ASSIs). • Loss or deterioration of SLNCI or equivalent.
Population	**Objective 2** To provide opportunities for participation through recycling and composting schemes	• Year on year reduction of kerbside collected recyclables contamination levels. • Year on year reduction in waste management costs per head population • Increase in number of recycling facilities per head population • Increase in recycling participation rates.	• Recorded contamination levels of kerbside collected recyclables. • Waste management costs per head population. • Recycling facilities available per head population. • Recycling scheme participation studies. • Compliance with the measures detailed in the North West region Implementation Action Plan (IAP) for Education and Awareness.
Human Health	**Objective 3** To reduce risks to health	• Provide safe waste management sites and working conditions • Prevent emissions, nuisance dust and odours emanating from waste facilities and activities • Prevent illegal movement and dumping of waste (including transboundary).	• Number of accidents / incidents associated with waste management activities and facilities • Health issues and nuisance complaints associated with waste management activities and emissions • Volumes of illegal waste dumped (including transboundary).
Soils	**Objective 4** To reduce the environmental impacts – soils	• No soil contamination due to waste management activities	• Area of land contaminated or impacted due to waste activities, and the location of new facilities. • Contamination statistics and reports
Water	**Objective 5** To reduce the environmental impacts – groundwater and surface water	• No deterioration of water status up or downstream of NWRWMG waste management facilities, due to development or operation. • No negative impacts on water supplies. • No negative impacts on flood defences, floodplains or local flooding characteristics. • No negative transboundary impacts on water resources (NWRWMG within international RBD)	• WFD water status of surface and groundwaters in the area. • Number of reported pollution incidents due to waste management activities.

SEA Topic	SEA Objective	SEA Target	SEA Indicators
Air	**Objective 6** To reduce the environmental impacts – air pollution and noise.	• Reduce air emissions from waste management activities • Reduce noise emissions from waste management activities	• Periodic dust, gas and noise monitoring in the vicinity of waste management facilities. • Status of air quality near waste management facilities.
Climatic Factors	**Objective 7** To reduce greenhouse gas emissions and adapt to potential climatic change.	▪ Reduce greenhouse gas emissions from NWRWMG waste management activities ▪ Provide waste management facilities that are adapted to potential climatic change	▪ Estimated GHG emissions ▪ CO_2 emissions from energy recovery, eg. landfill flares. ▪ Facilities designed with potential climatic change taken into consideration.
Material Assets	**Objective 8** Provide sustainable waste management solutions for the NWRWMG.	• Reduce the quantity of waste produced. • Increase recycling and composting rates. • Recovery of residual waste (percentage recovered). • Reduce the quantity of materials Landfilled.	• Waste production statistics – WasteDataFlow • Material recovery and recycling statistics • Landfill statistics
Cultural Heritage (inc. Architectural and Archaeological)	**Objective 9** To reduce the environmental impacts on the historic environment and cultural heritage.	• Avoid damage to any cultural heritage features in development and/or operation of NWRWMG facilities.	• Number of heritage features restored due to NWRWMG activities. • Number of new heritage features discovered due to NWRWMG activities. • Number of heritage features lost or destroyed due to NWRWMG activities.
Landscape	**Objective 10** To reduce the environmental impacts on landscape.	• No damage to local vistas and landscape in the area of NWRWMG facilities. • Enhance the local vistas and landscape where possible, with sensitive and sustainable development practices.	• Significant negative changes in landscape quality land cover types. • Percentage changes in land cover types in areas with a high sensitivity to change. • Changes in landscape character definitions.

8 PROPOSED ALTERNATIVES / MEASURES

8.1 INTRODUCTION TO PROPOSED ALTERNATIVES

Section 7 of the NWRWMG WMP 2013 – 2020 (Section 7.44 onwards) outlines the current arrangements in place within the region for the management of local authority collected municipal waste, which are based on the BPEO defined for the region when the Waste Plan was prepared in 2002. These arrangements are made up of four main components:

- Education and Awareness Programme;
- Materials Recovery – Recycling and Composting;
- Treatment of Residual Wastes, and
- Landfilling of Residual Wastes.

The services for the recovery of materials for recycling and composting were based on prioritising segregation at source and have included:

- Provision of receptacles for segregated collection at households;
- Expansion in the number of bring sites within the region, and
- Enhancement of capacity at Household Waste and Recycling Centres, for the segregation of wastes for recovery.

Within Section 7 of the WMP (7.114 onwards – Measures and Actions) the assessment of the requirements for the future management of municipal waste within the region identified three main elements. These elements focused on maximising, as far as is practicable, Waste Prevention first and foremost, followed by Material Recovery - Recycling and Composting, with the aim being to minimise the amount of material requiring residual treatment and hence ensure that waste within the region is managed in the most sustainable way possible. The proposed measures and actions to be implemented by the District Councils can be summarised by the following:

Fly-Tipping and Illegal Dumping - District Councils are to facilitate education and awareness campaigns to highlight the dangers of illegal dumping and the consequences of those involved in illegal waste activities. District Councils are to work in partnership with the NIEA enforcement teams to deter, detect and prosecute those individuals involved in illegal dumping of waste.

Administrative Arrangements - The Councils recognise that the delivery of future services and facilities for the management of municipal wastes present significant challenges. The Councils will continue to assess the options available to them, in terms of the administrative arrangements, and other formal agreements, between the Councils to ensure that risks are identified and managed in an effective manner, and that the services are delivered in as cost effective a manner as possible.

Funding and Affordability - The infrastructure and services needed will increase the costs of waste management significantly within the NWRWMG, compared to current levels of expenditure. Councils will work with Government, on an ongoing basis, both directly and through NILGA, to ensure that adequate funding is available, and to avoid an unreasonable or unsustainable burden being placed on any one player.

Independent Auditing - Councils are to instigate and facilitate an independent audit of recycling and recovery performance to ensure that both the targets and commitments identified within this Plan are being achieved.

Data Collection and Monitoring - Commit resources to data collection and management to monitor and assess performance. This includes the development of a systematic reporting mechanism that can be used by all Councils in contracts.

Monitor and assess the performance of recycling and composting initiatives and continue to improve data and information on municipal waste arisings and through the continued development of WasteDataFlow and compositional surveys.

Waste compositional analysis on kerbside collected household residual waste and residual waste from RCs was carried out in 2009 which was supported by the Councils in the region. Councils will support a survey to monitor the composition of all municipal waste to, inter alia assess changes in the waste stream, to allow targets to be met and priorities for the collection of materials or diversion from landfill to be identified.

Waste Prevention

Identify, prioritise and implement waste prevention initiatives as set out in the Waste Prevention Plan, prepared by the Department of the Environment.

Continue to deliver sustained education and awareness campaigns - undertaken by Waste Education Officers to encourage a sense of community involvement and ownership of waste management at a District Council level, through highlighting the importance of effective and sustainable waste management and the ways in which waste can be prevented amongst all stakeholder groups. It is important that these are carried out at both local level, but also at a level that complements national campaigns such as Rethink Waste.

Continue to supply home composting units, especially in areas with restricted access to brown bins, in order to decrease the amount of biodegradable waste entering the residual waste stream.

Materials Recovery - Recycling and Composting

Continue to provide receptacles for the segregated kerbside collection of compostable materials in areas where this is considered practicable and appropriate, and maintain a collection service. The provision of receptacles for mixed garden and food wastes or separately collected food waste will be taken in consideration with the implementation of the draft Food Waste Regulations (Northern Ireland), 2013.

Continue to ensure that suitable contracts are in place for the treatment of mixed garden and food wastes.

Continue to provide receptacles for the segregated kerbside collection of mixed dry recyclables for each new household within the region, as necessary.

Enhance Recycling Centres, as appropriate, to encourage the collection of source separated waste to enable a shift away from waste disposal and towards recycling and reuse.

Continue to maintain or procure suitable contracts for the bulking, sorting, transfer and re-processing of the mixed dry recyclables collected at bring sites, civic amenity sites / recycling centres, and from households. NWRWMG will as far as is practicable continue to streamline current contracts and develop a Group approach.

Residual Waste Management and Energy Recovery

Prepare and implement contracts for the procurement, delivery and operation of residual waste treatment for the North West Group. It is anticipated that this will be a performance-based contract, including additional recycling by at least 2019/20 and landfill diversion. The level of recycling to be achieved will be subject to the procurement process and value for money considerations. The duration of contracts will be on a short to medium term and will be operational towards 2019/20 with the potential option to extend beyond that date to enable landfill diversion targets to be achieved.

Section 8 of the WMP also details the Waste Education and Awareness measures that the NWRWMG councils will implement within the Plan period, which can be summarised as follows:

- Deliver a range of communications to encourage householders to participate with the recycling services and to use them correctly;
- Provide good Public Relations (PR) and advertising;
- Provide regular exhibitions and displays at areas of high footfall throughout each council area;
- Provide site visits to recycling facilities for school or community groups;

- Continue to encourage greater participation among householders in relation to the mixed dry recyclable collection, the collection of biowastes via the brown bin and home composting units;
- Provide ongoing education and awareness campaigns;
- Continue householder education on the use of HWRCs and Bring Sites;
- Provide training for Council staff and crew to ensure they are fully briefed about the purpose of their job and the benefits to the community;
- Assess the training needs for Recycling Officers on a yearly basis and ensure and that all Recycling Officers have and maintain the necessary skill set to engage with all local stakeholders;
- Facilitate education and awareness campaigns to highlight the dangers of illegal dumping and the consequences of those involved in illegal waste activities, and
- The NWRWMG will develop a policy for monitoring and evaluation and each council will develop a monitoring schedule in line with Group policy.

All the measures for implementation in the WMP are relatively benign and unobtrusive, serving to enable the continuation of or implementation of measures from the previous WMP, rather than introduce new waste management or treatment alternatives. Most of these measures as a stand alone alternative cannot be assessed either quantitatively or qualitatively for impacts upon the environment and therefore may be grouped under the one heading for the purposes of assessment. The measures for assessment are therefore as follows:

Alternative 1 – This is the "Do Nothing" alternative, whereas this review of the WMP is not implemented and the previous WMP (2006) remains as the Plan guiding the waste management activities of the constituent councils up to 2020.

Alternative 2 – This alternative is to implement the **Waste Prevention** measures. This will be assessed as one overall measure that implements the waste prevention initiatives as set out in the Waste Prevention Plan, continues to deliver sustained education and awareness of waste prevention and the supply of home composting units.

Alternative 3 – This alternative is to implement the **Material Recovery - Recycling and Composting** measures. This will be assessed as one overall measure that continues the kerbside collection of compostable materials and mixed dry recyclables, provision of receptacles for mixed garden and food wastes or separately collected food waste, continues to maintain or procures suitable contracts for the bulking, sorting, transfer and re-processing of the mixed dry recyclables and implements the enhancement of household waste recycling centres as appropriate.

Alternative 4 – This alternative is to implement the **Residual Waste Treatment and Energy Recovery** measures, as detailed previously. This will be assessed as one overall Residual Waste

Treatment measure that implements the contracts for the procurement, delivery and operation of residual waste treatment for the NWRWMG. Note that this will involve the use of existing facilities, with no development for new facilities.

9 ASSESSMENT

The environmental assessment of the non implementation of the Plan with Alternative 1 or the implementation of the Plan with Alternatives 2, 3 and 4 are given in the following section. The assessments are carried out by environmental baseline categories and are assessed to give the positive and negative effects, their significance and permanence, any secondary, cumulative or synergistic effects, and any inter-relationship of effects, in comparison to the SEA Objectives in **Table 7.1**. Associated with each Alternative is an impact summary table. For this assessment the short term is defined as being the immediate future, the medium term is defined as being within 2-3 years of implementation and the long term is defined as being from 3 years to the end of the Plan period, i.e. 2020.

9.1 ALTERNATIVE 1 - DO NOTHING

An overview of the evolution of the environment in the absence of the Plan is given in **Section 5.3**. Below is a more detailed assessment of this, to provide an approximation of what would happen in the study area if the Plan were not implemented, i.e. The Do Nothing option.

Biodiversity, Flora and Fauna

Not implementing the NWRWMG WMP 2013 – 2020 is unlikely to have any positive or negative impacts on biodiversity, flora and fauna in the short, medium and long term. There is unlikely to be additional damage being caused to protected sites or species in the region from not implementing the new WMP. Implementation of this alternative across the NWRWMG region is unlikely to have any impacts upon Natura 2000 sites and would not require any further investigation under the Habitats Directive 92/43/EEC.

Population and Human Health

By not implementing the NWRWMG WMP 2013 – 2020 there will not be the provision of additional opportunities for participation through recycling and composting schemes, other than those already implemented in the previous Plan. There may still be slight increases in recycling facilities and recycling participation rates in the short term, due to the residual effects of the previous Plan, however these are likely to plateau in the short or medium term without the implementation of new Plan. Likewise, kerbside collected contamination levels and waste management costs are unlikely to improve in the medium and long term.

Also, by not implementing the Plan there will not be the provision of any new waste management sites and no new risks to human health. This will therefore not have any positive or negative impacts on human health, or reducing the risk to human health, in the short, medium and long term.

Soils and Geology

By not implementing the NWRWMG WMP 2013 – 2020 there is unlikely to be any additional soil contamination due to waste management activities. There are unlikely to be any positive or negative impacts on soil resources in the short or medium term from implementation of this alternative. In the long term however, without the implementation of the Plan, there is the potential for the NWRWMG councils to remain reliant on landfilling of wastes, as no facilities would have been developed to recover and recycle materials, and therefore slight negative impacts.

Water

By not implementing the NWRWMG WMP 2013 – 2020 there are unlikely to be any additional impacts on groundwater and surface water quality and quantity due to waste management activities. There are unlikely to be any positive or negative impacts on water in the short, medium and long term from implementation of this alternative. However, if a waste management facility in the NWRWMG region is currently causing point or diffuse pollution pressures on a WFD waterbody, which may prevent the waterbody from achieving "good status" by 2015, 2021 or 2027, this alternative may then have a significant negative environmental impact, as without the new WMP there is no Plan to improve upon the existing measure. However landfills that are more likely to impact upon water quality would be relatively old and most likely already closed. The NWRWMG municipal landfills at Craigahulliar and Ballymacombs are relatively modern and are therefore lined and incorporate leachate collection and treatment systems.

Air and Climate

By not implementing the NWRWMG WMP 2013 – 2020 there are unlikely to be any additional environmental impacts on air and noise due to waste management activities. There are likely to be reductions in air emissions and noise from waste management activities in the future, however this will be due to other environmental legislation and continuing technological improvements. Not implementing the new WMP will therefore not cause any reductions in air emissions and noise.

Not implementing the new WMP is also unlikely to have any additional impacts on climate and climatic factors; however there will also not be any additional reductions in greenhouse gases from waste management activities in the NWRWMG region, other than those that were reduced by the previous Plan incarnation. Without the adoption of the new WMP there is unlikely to be any provisions for adaptation to climatic change and increased weather variability in NWRWMG waste management facilities.

Material Assets

In the short term it is likely that the current WMP for the NWRWMG region will continue to provide sustainable waste management solutions for the public, with continued reduction of waste quantities, continued increases in recycling and composting rates, continued increases in recovery of residual wastes and a continued reduction of materials landfilled. Without the implementation of the new WMP there is likely to be a plateau reached in the medium term, for example with recycling and composting rates, whereas there is not the adoption of new measures and/or contracts to continue the work started in the previous Plan. As this means the previous WMP can only take the waste management for the region so far, in the long term the constituent NWRWMG councils may not be able to meet recycling targets set by the EU Directives, the Programme for Government and the NI Waste Management Strategy. This could mean potentially moderate negative impacts in the long term.

Cultural Heritage, including Archaeological and Architectural Heritage

By not implementing the NWRWMG WMP 2013 – 2020 there are unlikely to be any additional environmental impacts on cultural heritage, including archaeological and architectural heritage due to waste management activities. However there is also unlikely therefore to be the restoration or discovery of new heritage features.

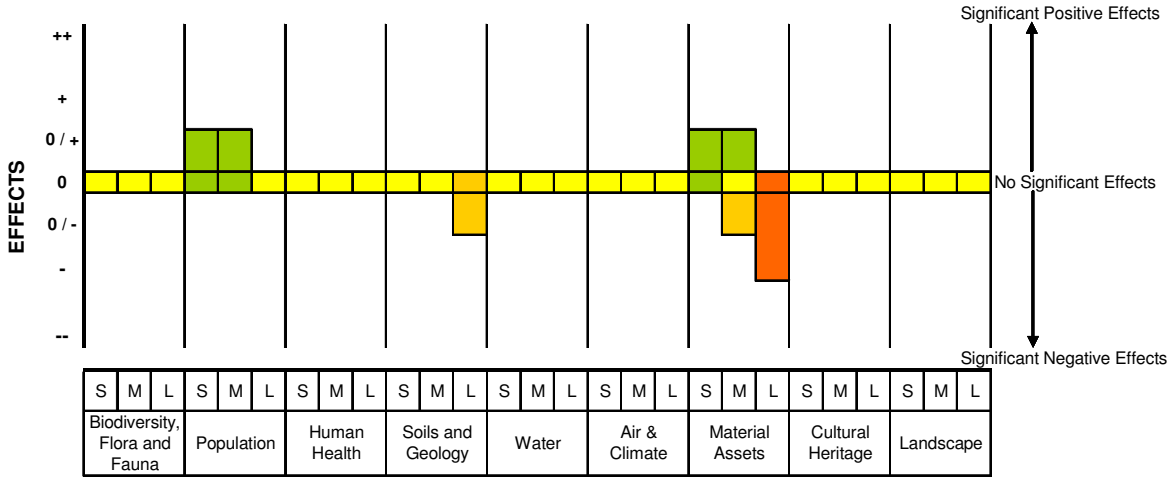
Landscape

By not implementing the NWRWMG WMP 2013 – 2020 there are unlikely to be any additional environmental impacts on landscape due to waste management activities.

Alternative 1 Summary

In summary, not implementing the NWRWMG WMP 2013 – 2020 is only likely to have significant negative environmental impacts on material assets in the long term, whereas the previous Plan may not provide sufficient material recovery and recycling to meet the new targets. It should also be noted that not implementing the WMP will also mean not implementing a Plan that has been assessed by an SEA and the environmental objectives, mitigation measures and monitoring proposals from the SEA will not be incorporated into the future tracking of the environmental impacts and progress of the Plan. Any future assessment of Plan progress will therefore still be relying solely on data on waste prevention and material reuse, recovery, recycling and disposal, and not any impacts on the wider environment. A summary figure of the impacts, and their significance, of not implementing the Plan is given below in **Figure 9.1**.

Figure 9.1: Assessment Alternative 1 – Do Nothing



Interrelationship of Effects

By not implementing the new WMP there has been identified to be potentially significant impacts on material assets in the long term. If the NWRWMG councils cannot meet their recycling and recovery targets there is the potential for fines to be handed down from the EU, which would in turn mean less money within the regional and national economy. This could then have negative impacts upon population and human health within the NWRWMG region and potentially Northern Ireland as a whole. Also, by not implementing the WMP there is the potential for impacts (including transboundary) on other waste management regions, as excess waste material will still need to be recycled, composted or disposed of and the NWRWMG may have to export these materials.

9.2 ALTERNATIVE 2 – WASTE PREVENTION

Biodiversity, Flora and Fauna

Implementation of the Waste Prevention measures is unlikely to have any positive or negative impacts on biodiversity, flora and fauna in the short, medium and long term. There is unlikely to be additional damage being caused to protected sites or species in the region and transboundary areas from implementing the measure. The provision of home composting units to areas that have limited access to brown bins may have a small positive impact on biodiversity, flora and fauna in the medium and long term if there is a good uptake of units by the public. Implementation of this alternative across the NWRWMG region is unlikely to have any impacts upon Natura2000 sites and would not require any further investigation under the Habitats Directive 92/43/EEC.

Population and Human Health

Implementation of the Waste Prevention measures is unlikely to have any significant positive or negative impacts on population in the short, medium and long term. Waste prevention education, awareness raising and stakeholder engagement should however provide reductions in bin contamination and increases in recycling scheme participation rates.

Implementation of the Waste Prevention measures is unlikely to have any significant positive or negative impacts on human health in the short, medium and long term. However, with potential for reduction in waste to be managed there is the reduction in potential for dust and odour nuisance from waste facilities.

Soils and Geology

Implementation of the Waste Prevention measures is unlikely to have any positive or negative impacts on soils and geology in the short, medium and long term. However, with potential for reduction in waste to be managed there is the reduction in potential for soil to be contaminated by waste management activities.

Water

Implementation of the Waste Prevention measures is unlikely to have any positive or negative impacts on water quality and quantity in the short, medium and long term. However, with potential for reduction in waste to be managed there is the reduction in potential for WFD status to be impacted by waste management activities, i.e a reduction in pressures on waterbody status.

Air and Climate

Implementation of the Waste Prevention measures is likely to have slight positive impacts on air and climate in the medium and long term, as the prevention of waste arisings may lead to slight reductions in air emissions from waste management activities. There is also the potential for slight reductions in greenhouse gas emissions being generated by NWRWMG waste management activities in the medium and long term, as with potential for reduction in waste to be managed there is the potential for reduction in greenhouse gas emissions from waste decomposition and transport. The implementation of the Waste Prevention measures is unlikely to provide any provisions for adaptation to climatic change and increased weather variability for NWRWMG waste management facilities.

Material Assets

Implementation of the Waste Prevention measures is likely to have moderate positive impacts on material assets in the medium and long term, as this will help to provide sustainable waste management through the reduction of waste quantities produced and the reduction of material landfilled.

Cultural Heritage, including Archaeological and Architectural Heritage

Implementation of the Waste Prevention measures is unlikely to have any positive or negative impacts on cultural heritage, including archaeological and architectural heritage in the short, medium and long term, as the prevention of waste generation is unlikely to damage existing heritage features or enable the discovery of new heritage features.

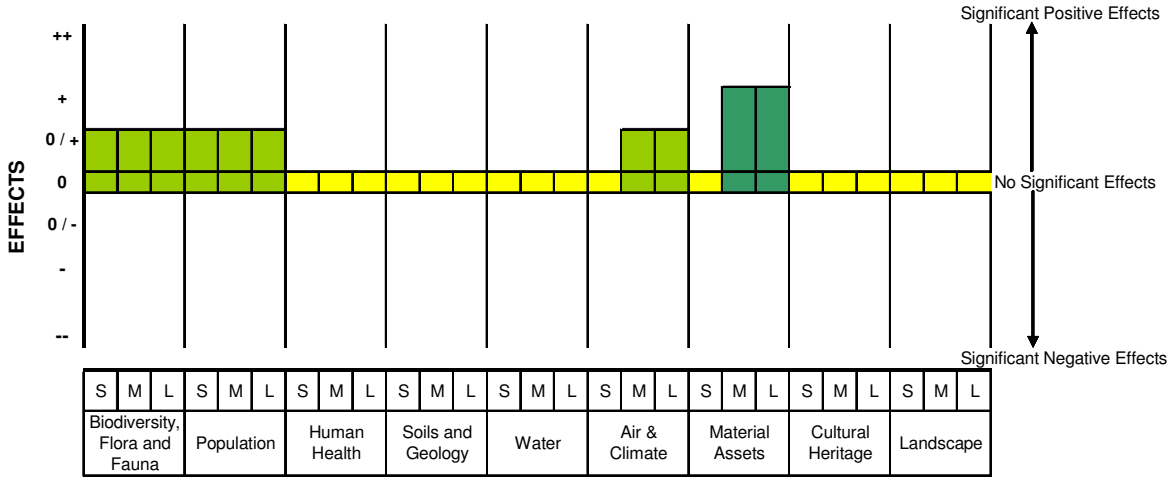
Landscape

Implementation of the Waste Prevention measures is unlikely to have any positive or negative impacts on landscape in the short, medium and long term, as the prevention of waste generation is unlikely to impact upon or enhance existing landscapes or vistas.

Alternative 2 Summary

In summary, the implementation of the Waste Prevention measures may provide slight positive impacts on a local or regional scale on population, air and climate, and moderate positive impacts on material assets. A summary of the assessment for Alternative 2 is given in **Figure 9.2**.

Figure 9.2: Assessment Alternative 2 – Waste Prevention



Interrelationship of Effects

There is the potential for interaction between the positive impacts on population, material assets and air and climate with the implementation of this measure. By providing the public with more education and greater awareness on waste and its prevention there should be reductions in waste produced, which would mean reductions on wastes to be managed, then potentially reductions in air and GHG emissions from managing the wastes.

9.3 ALTERNATIVE 3 – MATERIAL RECOVERY - RECYCLING AND COMPOSTING

Biodiversity, Flora and Fauna

Implementation of the Material Recovery measures is unlikely to have any positive or negative impacts on biodiversity, flora and fauna in the short, medium and long term. There is unlikely to be additional damage being caused to protected sites or species in the region and transboundary areas from implementing the measure. Implementation of this alternative across the NWRWMG region is unlikely to have any impacts upon Natura 2000 sites and would not require any further investigation under the Habitats Directive 92/43/EEC.

Population and Human Health

Implementation of the Material Recovery measures is likely to have slight positive impacts on population in the short, medium and long term, as this will provide opportunities for participation through recycling and composting schemes. Implementation of these measures should provide reductions in bin contamination and increases in recycling scheme participation rates.

Implementation of the Material Recovery measures may have slight positive impacts on human health in the medium and long term as the enhancement of recycling centres can create safer waste management facilities and reduce the potential for nuisance dust and odours.

Soils and Geology

Implementation of the Material Recovery measures is unlikely to have any positive or negative impacts on soils and geology in the short, medium and long term.

Water

Implementation of the Material Recovery measures is unlikely to have any positive or negative impacts on water quality and quantity in the short, medium and long term.

Air and Climate

Implementation of the Material Recovery measures has the potential to have slight positive and negative impacts on air and climate in the medium and long term, as the diversion of waste from landfill may lead to slight reductions in some air emissions (including GHGs) from waste management activities, yet the increased management of wastes with this measure may lead to increased vehicle

and plant emissions (including GHGs). The implementation of the Material Recovery measures may provide some provisions for adaptation to climatic change and increased weather variability though the enhancement of recycling centres, however this will need to be incorporated into any design and planning for the enhancement works.

Material Assets

Implementation of the Material Recovery measures has the potential to have significant positive impacts on material assets in the medium and long term, as will help to provide sustainable waste management through increased recycling and composting rates and the reduction of material landfilled.

Cultural Heritage, including Archaeological and Architectural Heritage

Implementation of the Material Recovery measures is unlikely to have any positive or negative impacts on cultural heritage, including archaeological and architectural heritage in the short, medium and long term, as the recovery of materials via recycling and composting is unlikely to damage existing heritage features or enable the discovery of new heritage features.

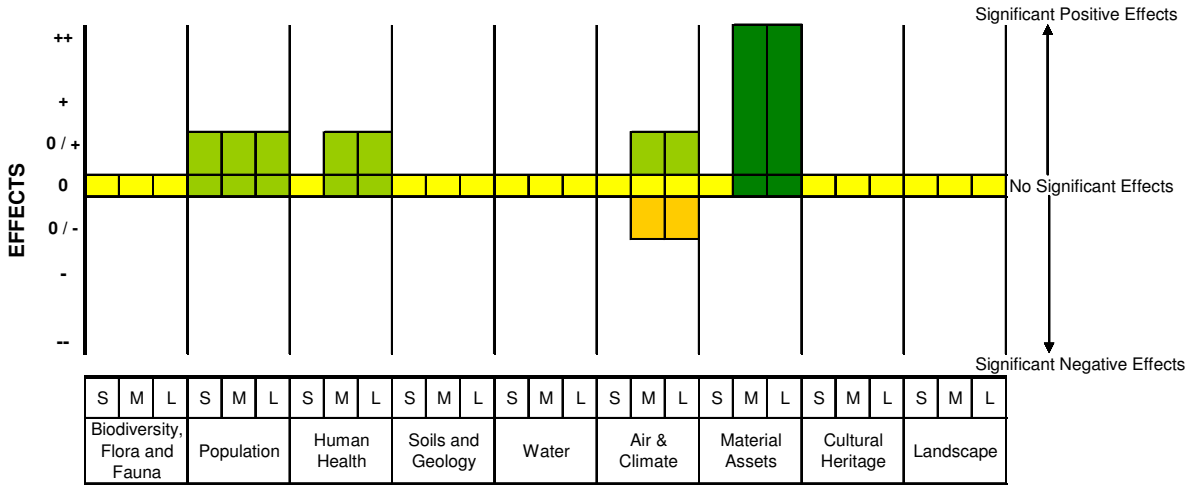
Landscape

Implementation of the Material Recovery measures is unlikely to have any positive or negative impacts on landscape in the short, medium and long term, as recycling and composting measures are unlikely to impact upon or enhance existing landscapes or vistas. The enhancement of recycling centres will however need to be carefully planned to ensure they don't impact on local vistas and landscapes.

Alternative 3 Summary

In summary the implementation of the Material Recovery measures may provide slight positive impacts on a local or regional scale on population, human health, air and climate, and significant positive impacts on material assets. The implementation of the measure however also has the potential for slight negative impacts on air from emissions. A summary of the assessment for Alternative 3 is given in **Figure 9.3**.

Figure 9.3: Assessment Alternative 3 – Recycling and Composting



Interrelationship of Effects

There is the potential for interaction between the positive impacts on population, material assets and air and climate with the implementation of this measure. By providing the public with greater opportunities for recycling and composting there is likely to be increases in recycling and composting rates, and then reductions in the quantities of materials landfilled. However, by providing the public with greater opportunities for recycling and composting there is also likely to be more requirements for collection of materials and therefore potentially higher air emissions. The more material there is to collect, bulk, sort, transfer, and re-process, the greater the energy demands and most likely the greater the emissions.

9.4 ALTERNATIVE 4 – RESIDUAL WASTE TREATMENT AND ENERGY RECOVERY

Biodiversity, Flora and Fauna

Implementation of the Residual Waste Treatment measure is unlikely to have any positive or negative impacts on biodiversity, flora and fauna in the short, medium and long term. The treatment of residual wastes, with additional recovery of materials contributing to recycling targets, the production of a fuel for energy recovery and a reduction in the landfilling of wastes is unlikely to cause additional damage to protected sites or species in the region and transboundary areas.

Implementation of this alternative across the NWRWMG region is unlikely to have negative impacts upon Natura2000 sites provided any proposed facilities are not located within close enough proximity of a Natura2000 site to cause negative impacts. This distance would be dependant upon the type and sensitivity of the species and/or habitats of the Natura2000 site. Further investigation under the Habitats Directive 92/43/EEC would be required at project level planning for this alternative.

Population and Human Health

Implementation of the Residual Waste Treatment measure is unlikely to have any positive or negative impacts on population in the short, medium and long term, as although this will manage residual waste, it will not actually provide new recycling and composting opportunities for the population of the region. This measure however has the potential to have slight negative impacts on human health as the provision of new waste management facilities, has the potential for local impacts due to the generation of nuisance dust and odours.

Soils and Geology

Implementation of the Residual Waste Treatment measure has the potential for slight positive impacts on soils and geology within the region in the medium and long term. Implementation of this will enable more material resources to be recovered and less to be landfilled, which will mean there will be less potential for contamination of soil and geological resources.

Water

Implementation of the Residual Waste Treatment measure has the potential for slight positive impacts on surface water and groundwater within the region as the more material that is recovered means there is less material landfilled. This reduction on landfilling in the region means less point and diffuse pressure on waterbodies in the region. These positive impacts will be in the medium and long term, have the potential to be transboundary, however are unlikely to be significant. To ensure there are no

negative impacts on surface water or groundwater quality and quantity it is important to ensure all runoff and leachate from facilities is properly treated and disposed of safely in accordance with the appropriate drainage, water quality and health and safety legislation.

Air and Climate

Implementation of the Residual Waste Management Treatment measure has the potential for slight positive and negative impacts on air in the region, in the medium and long term. The positive impacts are likely to occur as there will be reduced emissions from landfills; however negative impacts are the increased emissions from proposed facilities. These emissions however have the potential to be better managed and mitigated for than those from landfills. Energy recovery will increase emissions on the local scale, however should provide overall reductions on air emissions on a regional scale, as emissions will be managed and regulated.

Implementation of the Residual Waste Treatment measure has the potential for slight positive impacts on climate and climatic change in the region in the medium and long term. Implementation of any proposed facilities will mean a reduction in GHG emissions from the region, and the planning of the plant has the potential to include for climatic change.

Material Assets

Implementation of the Residual Waste Management Treatment measure has the potential to have significant positive impacts on material assets in the medium and long term, as will help to provide sustainable waste management through increased recycling and composting rates, will increase the recovery of residual waste and will reduce the amount of material to be landfilled.

Cultural Heritage, including Archaeological and Architectural Heritage

Implementation of the Residual Waste Treatment measure is unlikely to have any positive or negative impacts on cultural heritage, including archaeological and architectural heritage in the short, medium and long term, as the treatment of residual waste, is unlikely to damage existing heritage features or enable the discovery of new heritage features.

Landscape

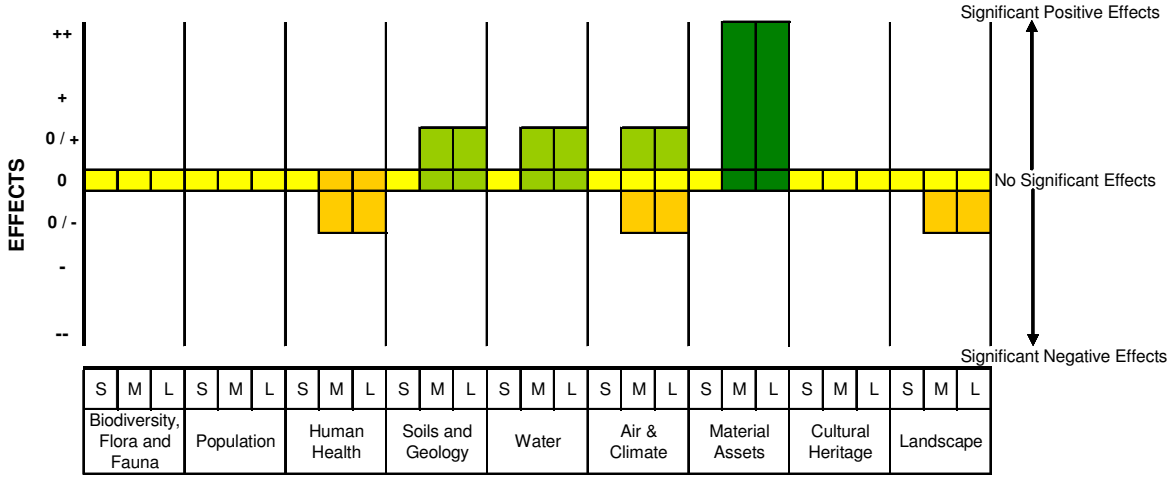
Implementation of the Residual Waste Treatment measure has the potential for slight negative impacts on landscape in the medium and long term. The waste management facilities will have the potential for negative impacts in most landscape settings. It is important that facilities are located in an area that it has the least visual impact, where it doesn't impact upon the setting of the landscape. It is

important that facilities are well designed to blend with the landscape and is well screened to minimise any impacts on a local scale.

Alternative 4 Summary

In summary the implementation of the Residual Waste Treatment measure may provide slight positive impacts on soils and geology, water, air and climate. The measure has the potential to provide significant positive impacts on material assets, as there is will be greater recovery of materials and less disposal to landfill. The measure however has the potential for slight negative impacts on human health, air and landscape. All impacts are in the medium and long term as there is unlikely to be any significant implementation of this measure in the short term. A summary of the assessment for Alternative 4 is given in **Figure 9.4**.

Figure 9.4: Assessment Alternative 4 – Residual Waste Treatment



Interrelationship of Effects

With the implementation of this measure there is the potential for interrelationships between air and human health. The sorting and treatment of materials at a single plant may lead to a greater concentration of emissions within a more localised area. Although these emissions may be reduced on a regional scale, they may have more impacts on the local population in terms of air pollution, dust and odours.

9.5 ALTERNATIVE SUMMARY COMPARISON AND CONCLUSIONS

As can be seen summarised in **Figures 9.2** to 9**.4**, the implementation of the Plan is likely to provide slight, moderate and significant positive environmental impacts. There is however the potential for some slight negative impacts in implementation of Alternatives 3 and 4; however these can be mitigated for. Implementation of any of these three sets of alternatives would be beneficial to the environment, over Alternative 1 – Do Nothing, particularly in the medium to long term.

The Interactions of and the interrelationships between Alternatives 2, 3 and 4 is likely to lead to the greatest positive cumulative impacts. Although Alternative 2 could be considered as a more stand alone option, there is far more interdependence between Alternatives 3 and 4, whereas if there is more material collected and recovered by the local authorities there is the need for greater capacity to process the material. It would be most environmentally beneficial to ensure that Alternatives 2, 3 and 4 are fully implemented, with appropriate mitigation measures in place as require, as this would provide the greatest cumulative benefit that neither option can provide by itself. There are unlikely to be any significant negative cumulative impacts from implementation of any Alternative or combination of Alternatives. There are also unlikely to be any transboundary negative impacts or transboundary cumulative negative impacts from implementing Alternatives 2, 3 and 4, or combinations of these Alternatives.

10 MITIGATION AND MONITORING

10.1 MITIGATION

Table 10.1 gives a summary of the potential impacts/problems that could be encountered in the implementation of the Plan, and potential mitigation measures for these impacts / problems. These mitigation measures have been incorporated into **Section 12.19** of the Final Plan.

Table 10.1: Potential Impacts and Mitigation

Topic	Alternative	Impact / Problem	Mitigation
A / C	3 / 4	Increased air emissions from increased waste management activity.	Cleaner fuels to be used. Well maintained waste management fleet and plant. Adoption of renewable energies (for example solar and wind) in powering waste management activities. Optimising of waste management collections.
A / C	4	Emissions from waste treatment facilities.	Ensure all emissions meet relevant European and National standards, with adequate emission abatement technology employed in design of plant. Air quality modelling and assessment undertaken for residual waste treatment facilities to model impacts. Assess new / enhanced facilities for potential nitrogen deposition impacts on sensitive habitats.
BFF	4	Potential for impacts on Natura 2000 sites, protected habitats and/or species if waste treatment facilities are sited in or in close proximity to a designated SPA, SAC, Ramsar site or nationally designated areas.	Adequate planning not to allow waste treatment facilities in or close to a Natura 2000 site, Ramsar Site or ASSI. Habitats Regulation Screening Assessment may be required at the project level to assist in planning for waste treatment facilities. Planning to not to allow waste treatment facilities in a SLNCI or Nature Reserve.
C	3	Adaptation to climate change in enhancement of recycling centres.	Take potential climatic change and increased weather variability into account in planning and design of enhancement works. Future proofing of recycling centres.
C	4	Adaptation to climate change in new waste treatment facilities.	Take potential climatic change and increased weather variability into account in planning and operation of any residual waste treatment facilities.
L	3	Potential for impacts on local vistas and landscape setting from recycling centres.	Aesthetic enhancement of recycling centres to fit with local setting, as well as functional enhancement.
HH / A	4	Potential for nuisance dust and odours from waste treatment facilities.	Good plant and site design alongside good site management should be able to minimise nuisance dust and odours. Dust and odour management plans to be developed for the plant. Odour abatement technology to be incorporated into waste treatment facilities. Odour modelling and assessment undertaken for waste treatment

Topic	Alternative	Impact / Problem	Mitigation
			facilities to model impacts.
W	4	Potential for runoff and leachate from waste treatment facilities.	Good plant and site design alongside good site management should be able to manage any potential site runoff or leachate.

BFF- Biodiversity, Flora, Fauna. HH - Human Health. A – Air Quality. C – Climate. L – Landscape W – Water

10.2 MONITORING

Article 10 of the SEA Directive requires that monitoring should be carried out in order to identify at an early stage any unforeseen adverse effects due to implementation of the Plan, with the view to taking remedial action where adverse effects are identified through monitoring. A monitoring programme is developed based on the indicators selected to track progress towards achieving strategic environmental objectives and reaching targets, enabling positive and negative impacts on the environment to be measured. The environmental indicators have been developed to show changes that would be attributable to implementation of the Plan. **Table 10.2** shows the targets and indicators for monitoring and who would potentially be the responsible body or organisation. This proposed environmental monitoring has been incorporated into the Final Plan in **Table 12.2**.

Table 10.2: Environmental Monitoring

SEA Target	SEA Indicators	Potential Responsible Authority	Possible Data Availability, Source and Frequency
No damage to protected sites in the NWRWMG region (BFF)	Status of EU Protected Habitats and Species and status of national Priority Species and Habitats. Condition of Selection Features in sites designated for nature conservation (SACs, SPAs and ASSIs).	NIEA	UK Report on Implementation of Habitats Directive (every 6 years). Northern Ireland Environmental Statistics Report (Annual). UK Biodiversity Action Plan (every 3 years). Northern Ireland Biodiversity Strategy (every 3 years). Northern Ireland Environmental Statistics Report (Annual). WANE Act 2011 Reporting (every 5 years).
No damage to or displacement of protected species in the NWRWMG region (BFF)			
No negative transboundary impacts on biodiversity, flora and fauna (BFF)		NPWS	NPWS Species Action Plan. Status of Protected Sites and Species in Ireland Report (Every 6 years).
Year on year reduction of kerbside collected recyclables contamination levels (P).	Recorded contamination levels of kerbside collected recyclables.	Local Authority / NWRWMG	Local Authority / NWRWMG contamination studies – As required.
Year on year reduction in waste management costs per head population (P).	Waste management costs per head population.		Local Authority / NWRWMG economic studies – As required.
Increase in number of recycling facilities per head population (P).	Recycling facilities available per head population.		NWRWMG Waste Management Plan review (every 6 years)
Increase in recycling participation rates (P).	Recycling scheme participation studies.		Local Authority / NWRWMG participation studies – As required.
Provide safe waste management sites and working conditions (HH)	Number of accidents associated with waste management activities and facilities	HSENI / Local Authority Environmental Health Department	Data collected as reported. Can be sourced on request.
Prevent nuisance dust and odours emanating from waste facilities and activities (HH)	Health issues and nuisance complaints associated with waste management activities	Local Authority Environmental Health Department / NIEA	Data collected as reported. Can be sourced on request.
Prevent illegal movement and dumping of waste (including transboundary) (HH).	Volumes of illegal waste dumped (including transboundary).	Local Authority Environmental Health Department / NIEA / EPA	Data collected as reported. Fly Tipping Framework. Irish National Waste Reports.
No soil contamination due to waste management activities (S)	Area of land contaminated or impacted due to waste activities, and the location of new facilities. Contamination statistics and reports	Local Authority Environmental Health Department / NIEA	Local Authorities collect information of potentially contaminated site within their council areas. Can be sourced on request. Data collected as reported from spills. Can be sourced on request. Northern Ireland Environmental Statistics Report (Annual).

SEA Target	SEA Indicators	Potential Responsible Authority	Possible Data Availability, Source and Frequency
No deterioration of water status up or downstream of NWRWMG waste management facilities, due to development or operation (W).	WFD water status of surface and groundwaters in the area.	NIEA	WFD Water Status Reports (2015). Revised River Basin Management Plans. WFD Local Management Area Plans. DARD Rivers Agency Flood Risk Management Plans (2015)
No negative impacts on water supplies (W)		NIEA / NI Water	
No negative impacts on flood defences, floodplains or local flooding characteristics (W).		NIEA / DARD Rivers Agency / OPW	
No negative transboundary impacts on water resources (NWRWMG within international RBD) (W)		EPA / RoI Local Authorities	
Reduce air emissions from waste management activities (A)	Periodic dust, gas and noise monitoring in the vicinity of waste management facilities. Status of air quality near waste management facilities.	Local Authority Environmental Health Department / NIEA	Data collected as reported. Can be sourced on request. Air Quality management Plans PPC reporting
Reduce noise emissions from waste management activities (A)			
Reduce greenhouse gas emissions from NWRWMG waste management activities (C)	Estimated GHG emissions CO_2 emissions from energy recovery, eg. landfill flares.	NIEA / NWRWMG	GHG Emissions Data Reporting and National (GHG) Inventory Reports
Provide waste management facilities that are adapted to potential climatic change (C)	Facilities designed with potential climatic change taken into consideration.	NWRWMG	Planning applications and As-built drawings.
Reduce the quantity of waste produced (MA)	Waste production statistics	Local Authority / NWRWMG / EPA	WasteDataFlow Reporting. Irish National Waste Report (Annual) Ireland National Hazardous Waste Management Plan (5 yearly)
Increase recycling and composting rates (MA)	Material recovery and recycling statistics		
Recovery of residual waste (percentage recovered) (MA)			
Reduce the quantity of materials Landfilled (MA)	Landfill statistics		

SEA Target	SEA Indicators	Potential Responsible Authority	Possible Data Availability, Source and Frequency
Avoid damage to any cultural heritage features in development and/or operation of NWRWMG waste management facilities (CH)	Number of heritage features restored due to NWRWMG activities. Number of new heritage features discovered due to NWRWMG activities. Number of heritage features lost or destroyed due to NWRWMG activities.	NIEA	NIEA Heritage Datasets and Reporting – Updated on ongoing basis.
No damage to local vistas and landscape in the area of NWRWMG waste management facilities (L) Enhance the local vistas and landscape where possible, with sensitive and sustainable development practices (L)	Significant negative changes in landscape quality and land cover types. Percentage changes in land cover types in areas with a high sensitivity to change. Changes in landscape character definitions.	NIEA / Local Authorities/ GSNI	Landscape Character Areas. Northern Ireland Countryside Surveys (every 10 years). Landcover Mapping. Local Area Plans

BFF- Biodiversity, Flora, Fauna. P – Population. HH - Human Health. S – Soils. W – Water. A – Air Quality. C – Climate. MA – Material Assets. CH – Cultural Heritage. L – Landscape.

11 NEXT STEPS

Following the release of this environmental report for the SEA of the Second version of the NWRWMG Waste Management Plan the main proposed processes and dates to implementing the Plan will be as detailed in **Table 11.1**.

Table 11.1: Proposed Processes and Dates for Implementing Plan

Dates	Environmental Assessment	Plan
January 2015	Second Draft SEA Environmental Report	Second Draft Waste Management Plan Publication
January – February 2015	Consultation	
March 2015	SEA Statement	Final Waste Management Plan

Written submissions or observations for the draft NWRWMG Waste Management Plan Environmental Report are now invited. Submissions can be made on-line at www.northwestwaste.org.uk. Alternatively, please send submissions to:

North West Region Waste Management Group
Derry City Council Offices
98 Strand Road
Derry
BT48 7NN

Tel: (028) 7137 6531
Fax: (028) 7137 0684
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12 ABBREVIATONS:

Abbreviation	Explanation
AONB	Area of Outstanding Natural Beauty
ASSI	Area of Special Scientific Interest
DoE	Department of Environment
EHS	Environment and Heritage Service
EIA	Environmental Impact Assessment
EIS	Environmental Impact Statement
EU	European Union
HWRCs	Household Waste Recycling Centres
MBT	Mechanical Biological Treatment
NI	Northern Ireland
NIEA	Northern Ireland Environment Agency
NINIS	Northern Ireland Neighbourhood Information Service
NISRA	Northern Ireland Statistics and Research Agency
PPS	Planning Policy Statement
RoI	Republic of Ireland
SEA	Strategic Environmental Assessment
SAC	Special Area of Conservation
SLNCI	Sites of Local Nature Conservation Importance
SMR	Sites and Monuments Record
SPA	Special Protection Area
WMP	Waste Management Plan

13 REFERENCES / GUIDANCE

The following Guidance / Methodology documents have been referred to during the SEA process:

Northern Ireland

A Practical Guide to the Strategic Environmental Assessment Directive. September 2005. Office of the Deputy Prime Minister.
http://www.ehsni.gov.uk/bm_sea_practicalguide.pdf

Strategic Environmental Assessment. Services and Standards for Responsible Authorities. Environment and Heritage Service.
http://www.ehsni.gov.uk/sea-servicesandstandards.pdf

Ireland

Article 8 (Decision Making) of EU Directive 2001/42/EC on Strategic Environmental Assessment (SEA) as amended. DoECLG Circular (PL 9/2013)

Development of Strategic Environmental Assessment (SEA) Methodologies for Plans and Programmes in Ireland. Synthesis Report. 2003. Environmental Protection Agency.
http://www.epa.ie/downloads/advice/ea/name,13547,en.html

Further Transposition of EU Directive 2001/42/EC on Strategic Environmental Assessment (SEA). DoECLG Circular (PSSP 6/2011)

Implementation of SEA Directive (2001/42/EC). Assessment of Certain Plans and Programmes on the Environment. Guidelines for Regional Planning Authorities. November 2004. Department of Environment, Heritage and Local Government.
http://www.environ.ie/en/Publications/DevelopmentandHousing/Planning/FileDownLoad,1616,en.pdf

Strategic Environmental Assessment (SEA) Checklist - Consultation Draft. January . Environmental Protection Agency.
http://www.epa.ie/downloads/consultation/strategic_environmental_assessment_jan086.pdf

Guidelines on SEA. Department of Communications, Energy and Natural Resources. Available at:
http://www.dcmnr.gov.ie/Marine/Environmental+Assessment/Environmental+Assessment.htm

Other

BGS, 2005. *A Groundwater Vulnerability Screening Methodology for Northern Ireland*. British Geological Survey, 2005.

DECC, 2013. *Greenhouse Gas Inventories for England, Scotland, Wales and Northern Ireland: 1990 – 2011.* Department of Energy and Climate Change, The Scottish Government, The Welsh Government, The Northern Ireland Department of Environment.

DOENI, 2014. *Northern Ireland Greenhouse Gas Inventory 1990 - 2012.* Available: http://www.doeni.gov.uk/ni_greenhouse_gas_inventory_1990_2012.pdf. June 2014.

NIEA 2013. http://www.doeni.gov.uk/niea/index.htm

NINIS, 2012 a. Northern Ireland Statistics and Research Agency (NINIS) (2012). *Farm Census (Administrative Geographies).*
Available: http://www.ninis2.nisra.gov.uk/public/pivotgrid.aspx?dataSetVars=ds-3139-lh-37-yn-1999-2012-sk-38-sn-Agriculture%20and%20Environment-yearfilter--

NINIS 2012b. Northern Ireland Statistics and Research Agency (NINIS) (2012). *Road lengths (Administrative Geographies).*
Available: http://www.ninis2.nisra.gov.uk/public/pivotgrid.aspx?dataSetVars=ds-2390-lh-37-yn-2002-2012-sk-118-sn-Travel%20and%20Transport-yearfilter

NISRA, 2011. Northern Ireland Statistics and Research Agency. Census 2011.

NISRA 2013, Northern Ireland Statistics and Research Agency, District Council Area Statistics - Economic Briefing.
http://www.detini.gov.uk/deti-stats-index/stats-regional-analysis.htm

Strategic Environmental Assessment DRAFT Practical Guidance for Practitioners on How to Take Account of Air. June . Scotland & Northern Ireland Forum for Environmental Research.

Strategic Environmental Assessment DRAFT Practical Guidance for Practitioners on How to Take Account of Soil. June . Scotland & Northern Ireland Forum for Environmental Research.

Strategic Environmental Assessment DRAFT Practical Guidance for Practitioners on How to Take Account of Water. June . Scotland & Northern Ireland Forum for Environmental Research.

Strategic Environmental Assessment and Biodiversity: Guidance for Practitioners. June 2004. Countryside Council for Wales, English Nature, the Environment Agency and the RSPB.
http://www.english-nature.org.uk/pubs/publication/PDF/SEAbiodiversityGuide.pdf

Strategic Environmental Assessment Toolkit (Version 1). September 2006. Scottish Executive.
http://www.scotland.gov.uk/Publications/2006/09/13104943/0

Strategic Environmental Assessment Website. Guidance on Air, Soil and Water. September 2009. SNIFFER.
http://www.seaguidance.org.uk/1/Homepage.aspx

APPENDIX A

Written Scoping Comments

Northern Ireland Environment Agency
www.ni-environment.gov.uk

Klondyke Building
Cromac Avenue
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BT7 2JA

Mr Richard Bingham
RPS
Consulting Engineers
Elmwood House
74 Boucher Road
Belfast
BT12 6RZ

Our ref: SEA 12 -13

5 August 2013

Dear Richard

The North West Region Waste Management Group (NWRWMG) (SEA Scoping Report)

Thank you for your email of 1 July 2013 to the SEA Team regarding the above consultation. The Department welcomes the opportunity to comment on this draft scoping document. Our response to your consultation on the scope of the Strategic Environmental Assessment (SEA) is set out below.

Air and Climate

Chapter 3 – Scoping

The Northern Ireland Climate Change Risk Assessment published in January 2012 (page 110-111) identified a range of potential climate change impacts on waste management. These include:

- leachate production, land degradation and composition;
- flooding of site facilities;
- vermin, odour, litter and dust;
- pathogen activity;
- subsidence and slope stability at landfills; and
- types of flora and fauna covering or around facilities and choice of ecological communities used to restore landfills.

To ensure the waste plan is taking full account of potential climate change impacts it would be useful if the issues referred to in the NI CCRA [and listed above] were considered within the potential environmental effects as set out on Page 14 (Table 3.1).

Chapter 4 – Plan Context

Page 17 (Table 4.2)

- Note that the most updated air quality directive is 2008/50/EC, which replaces 1996/62/EC.

Page 18 (Table 4.2)

The EU Adaptation Strategy was published in April 2013 and should be referred to. The Strategy is available at: http://ec.europa.eu/clima/policies/adaptation/what/index_en.htm and supersedes the EU White Paper.

Page 22 (Table 4.3)
To include: 'Environment (NI) Order 2002 – places a duty on district councils to periodically review and assess their air quality, and, where necessary, to declare an Air Quality Management Area and corresponding Air Quality Action Plan'.

Chapter 5 – Environmental Baseline

Page 37 (5.2.4.1)
The text on baseline monitoring is outdated. For the most recent and relevant information on NI's air quality monitoring network, see report 'Air Pollution in Northern Ireland 2011': http://www.airqualityni.co.uk/documents/1121130_AQ_NI_2011_Final.pdf (page 5).

Page 38 (5.2.4.3)
To include also: 'District Councils' review and assessment reports on air quality'. More updated information is also available from the Department's 'Air Pollution in Northern Ireland 2011' report [link above].

The Climate Section should include consideration of greenhouse gas emissions from waste management, specifically methane from landfill activities. More up to date information on greenhouse gas emissions is available (published on 7 June 2013) at: http://naei.defra.gov.uk/reports/reports?report_id=756

It is also suggested that consideration be given to including a climate change adaptation objective, target etc.

Chapter 6 – Framework for Assessing Environmental Effects

P49 (Table 6.2)
For monitoring, include also 'District Councils' review and assessment reports on local air quality'.

On a more general note it may be helpful if the SEA referred to the need for waste management to consider adaptation actions / measures in response to the potential impacts from climate change, to ensure that waste management becomes more resilient to our changing climate.

Natural Heritage and Water

Chapter 3 – Scoping

Page 13
In respect of the geographic scope, NWRWMG should satisfy itself that there are no trans-boundary issues, especially in the light of the remarks in Table 5.1 regarding Management Options for 'Waste Transported in & out of the Region (including cross-border movement)' and the potential for 'Illegal Dumping of Waste' from, or to, another jurisdiction.

Page 14 (Table 3.1)
The impacts of facilities on landscape quality should be expanded to encompass sites outside of designated landscape and scenic views to include impacts on all Landscape

Character Areas in Northern Ireland. Information on design and siting considerations may be obtained from the ERM Landscape Character Assessment Series at:
http://www.doeni.gov.uk/niea/land-home/landscape_home/country_landscape.htm

Chapter 4 - Plan Context

Page 30 (Table 4.3)

- Reference to the Natural Heritage Strategic Plan 2003 and its successor should be deleted as this was a business planning tool for the Agency.
- Include the second report of the Northern Ireland Biodiversity Group 2005-2009 with particular reference to Recommendation 21 regarding the 'Biodiversity Duty' of Councils. Gains for biodiversity can be achieved with landscaping for facilities as well as the restoration of sites. Losses to Biodiversity can be minimised or avoided through considered choice of sites for facilities and best practice operations.

Pages 24 and 30 (Table 4.3)

- The Water legislation and regional references should be updated with reference to Water Environment (WFD) Regulations (Northern Ireland) 2003 and the implementation programme 2009-2015 – see http://www.doeni.gov.uk/niea/water-home/wfd.htm
- Other relevant context for the water environment include Water Framework Directive (Priority Substances and Classifications) Regulations (Northern Ireland) (Amended 2012) which transpose the EC Priority Substances Directive (2008) into Northern Ireland legislation and ensure protection of the water environment from dangerous chemicals (priority and priority hazardous substances) and the Nitrates Action Programme Regulations (Northern Ireland) 2010 (NAP Regulations).

Chapter 5 - Environmental Baseline

Page 33

Reference should also be made to the NIEA website at: http://www.doeni.gov.uk/niea/ and information on Northern Ireland's Priority Species may be obtained from the Centre for Environmental Data & Recording (CEDaR) database: http://www.nmni.com/CEDaR/IRF although there will be 'gaps' in this information. The presence of some of Northern Ireland's Priority Habitats may be obtained from the Woodland Trust's Ancient Woodland Inventory: http://www.backonthemap.org.uk/ . You may also find reference to the Prioritised Action Framework on the NIEA website helpful: Prioritised Action Framework (.pdf 1.75Mb)

Page 34 (5.2.1.1)

Where reference is made to the Giant's Causeway World Heritage Site, note that important information for the World Heritage site is contained in the Draft Northern Area Plan 2016 in respect of Distinctive and Supportive Landscape Settings and their policies at:
http://www.planningni.gov.uk/index/policy/dev_plans/devplans_az/northern_2016/northern_countryside/northern_countryside_causeway.htm

Page 35

On the second paragraph, note that the Wildlife Order has since been amended:
http://www.legislation.gov.uk/nia/2011/15/contents/enacted

Chapter 6 - Framework for Assessing Environmental Effects

The Report should acknowledge the importance of 'restoration' of waste facilities and the contribution that well planned restoration can make both to landscape and biodiversity rehabilitation.

General Comments
Spatial data displaying an overview of landscape, and nature conservation biodiversity designations in the plan area would be useful.

We encourage the use of an Ecosystems Approach (including looking at Ecosystem Services) at the next stage of the process to consider Alternatives and the Likely Significant Effects of the Programme on the environment however would acknowledge that there are gaps in this knowledge. In general, any references in the text to EHS should be changed to NIEA.

The Report should make reference to the following documents:

- National Ecosystems Approach and in particular the Northern Ireland Chapter which can be found at; http://www.nienvironmentlink.org/publications/nea.php
- Full suite of Area Plans: http://www.planningni.gov.uk/index/policy/dev_plans.htm
- Note that the new 'Biodiversity Strategy' is due to be published by the end of this year.

It is important to include the Water Framework Directive as part of the review, as section 4.1 seems to indicate that it may be excluded due to its previous inclusion as part of the previous SEA in 2006. The inclusion of the WFD is required so that the impact of the NWRWMG plan can be assessed against the revised River Basin Management Area Plans and the new Local Management Area Plans within the NWRWMG area .i.e. those plans completed since the previous SEA in 2006.

Waste and Resources

Page 13 (3.1.2)
The document states that the temporal scope of the plan is 2013 -2020 but, while many of the statutory targets are for 2020, the draft revised strategy does not have a specified time frame and sets a longer term 'direction of travel' – something that the Waste Management Groups support given that their procurement projects will extend well beyond 2020 – and other national strategies (Wales and Scotland) have incorporated other targets related to climate change beyond this timeframe. The report should take account of this context.

Page 29 (Table 4.3)
Whilst the scoping report acknowledges the context of the revised draft Waste Management Strategy, the legislation and strategic context for the updated NWRWMG Plan is potentially confusing by continuing to retain reference to earlier waste strategies that have been superseded. The report should be comprehensively updated by deleting the reference to the 2000 Waste Strategy as this was fully superseded by the 2006 Waste Strategy. The 2006 Waste Strategy should no longer be referred to as 'new' in the text box as this is also in process of being replaced under the current review. Following completion of the consultation earlier this year, the latest position on the waste management strategy can be found at:http://www.doeni.gov.uk/waste_management_strategy

Should you have any further queries please contact Siobhan Conlon (SEA Coordinator) on direct line 028 90569442.

Yours sincerely

Pat Corker
Principal Policy Officer

Mr Richard Bingham
RPS Consulting Engineers
Elmwood House
74 Boucher Road
Belfast BT12 6RZ
Northern Ireland

30th July 2013 Our Ref: SCP 130701.1

Re: SEA Scoping Report for the North West Region Waste Management Group (NWRWMG) Waste Management Plan 2013-2020

Dear Mr. Bingham,

I refer to and acknowledge your correspondence, dated 1st July 2013, in relation to the Strategic Environmental Assessment Scoping for the North West Region Waste Management Group (NWRWMG) Waste Management Plan 2013-2020, hereafter referred to as 'the Plan'. The EPA welcomes the opportunity to input to the SEA scoping process.

Guidance on the SEA Scoping Process is available on the EPA website and can be downloaded at the following address:
http://www.epa.ie/pubs/advice/ea/

Specific Comments

Some aspects for consideration in relation to the Draft Scoping Report include:

- *Table 4.1 – Preliminary Review of Legislation* - consider including the following EU legislation in Table 4.2 European Pollutant Release and Transfer Register (PRTR) Regulations (2006), Waste Statistics Regulation (2002).

- Updates of the relevant aspects of Table 4.1 should be considered including relevant transboundary related National legislation e.g. Waste Shipment Regulations. Additionally some of the EU Directives may need to be updated as appropriate.

- Section 5.2.3 – Include reference to the Water Framework Directive (WFD) and relevant International River Basin Management Plans (RBMPs).

- Section 5.2.8 -Refer to IMPEL's (the Network for the Implementation and Enforcement of Environmental Law) Transfrontier Shipment of Waste (TFS) in the context of cross border cooperation in–External Factors.

- Table 6.2 – A possible Objective-Target-Indicator (OTI) to consider is a commitment to there being no TFS incidents/accidents during the time period or illegal movements of waste detected.

- Table 6.2 -Relevant measures which will achieve the relevant SEA targets should be considered.

- Where relevant, potential transboundary aspects in the context of Table 6.2 should be considered for inclusion. Under Water consider including specific reference to the International RBMPs.

- Consultation with the relevant border region local authorities should be considered in context of potential transboundary effects.

- Consider possible implications re Floods Directive Catchment Flood Risk Assessment and Management Studies (CFRAMS).

For information, the existing Regional Waste Management Plans for the Regional Waste Management Authorities have been evaluated in the context the EU Waste Framework Directive. Following the proposed reconfiguration of the waste management planning regions a reduced set of new waste management plans reflecting the reconfigured regions will be prepared.

If not already contacted, the National Trans Frontier Shipment Office (NTFSO) at Dublin City Council should be included as a consultee in the context of possible transboundary shipment of waste related issues. NTFSO Contact Details: nationaltfs@dublincity.ie Tel - 01 222 4631 / 4633

Further comment will be provided by the Agency upon receipt of the Draft Environmental Report and Plan and associated documents during the next statutory consultation phase of the SEA Process.

Updated SEA Regulations / Circular
For information amending SEA Regulations were signed into Irish law on 3rd May 2011, amending the original SEA Regulations.

- European Communities (Environmental Assessment of Certain Plans and Programmes) (Amendment) Regulations 2011, (S.I. No. 200 of 2011), amending the European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004 (S.I. No. 435 of 2004), and

S.I No. 435, as amended, relates to non land use plans including plans for the waste sector.

The DoECLG Circular (PSSP 6/2011) '*Further Transposition of the EU Directive 2001/42/EC on Strategic Environmental Assessment (SEA)'* should also be referred to and integrated into the Plan.

The recent DoECLG Circular (Circular PL 9 of 2013) '*Article 8 (Decision Making) of EU Directive 2001/42/EC on Strategic Environmental Assessment (SEA) as amended'* should also be taken into account during the preparation of the Draft Plan and in undertaking the SEA process.

European Communities (Birds and Natural Habitats) Regulations 2011
The requirements of the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. No. 477 of 2011), should also be taken into account, where relevant, in the context of potential transboundary effects on Natura 2000 sites.

Environmental Authorities
As appropriate, consultation should also be undertaken with the following:

- The Minister for the Environment, Community & Local Government

- Minister for Agriculture, Marine and Food, and the Minister for Communications Energy and Natural Resources, where it appears to the planning authority that the plan or programme, or modification of the plan or programme, might have significant effects on fisheries or the marine environment

- where it appears to the competent authority that the plan or programme, or amendment to a plan or programme, might have significant effects in relation to the architectural heritage or to nature conservation, the Minister for Arts, Heritage and Gaeltacht Affairs, and

Should you have any queries or require further information in relation to the above please contact the undersigned.

I would be grateful if an acknowledgement of receipt of this submission could be sent electronically to the following address: sea@epa.ie.

Yours Sincerely,

Tadhg O'Mahony
Senior Scientific Officer
SEA Section
Office of Environmental Assessment
Environmental Protection Agency
Regional Inspectorate
Inniscarra,
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Suirbhéireacht Gheolaíochta Éireann
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Mr Richard Bingham
RPS Consulting Engineers
Elmwood House
74 Boucher Road
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BT12 6RZ

02/08/2013

RE: SEA of the NWRWMG Waste Management Plan 2013-2020

Your Ref: Ltr 130701

GSI Ref: 13/140

Dear Mr Bingham,

I would like to acknowledge receipt of your letter of the 1st July 2013 concerning the above scheme.

Please note that Geological Heritage data can now be viewed online on the GSI Public Data Viewer at: http://spatial.dcenr.gov.ie/imf/imf.jsp?site=GSI_Simple **– see below.**

Datasets

The Geological Survey of Ireland, as the national earth science agency, has datasets on Bedrock Geology, Quaternary Geology, Mineral deposits, Groundwater Resources, Geological Heritage, Landslides and the Irish Seabed. These comprise maps, reports and extensive databases that include mineral occurrences, bedrock/mineral exploration, groundwater, site investigation boreholes, karst features, wells and springs.

To assist with an Environmental impact Assessment (EIA), and especially the "Soils & Geology" and "Surface Water & Groundwater" parts, maps/databases are available on the GSI website under "Online Mapping"- direct link: http://www.gsi.ie/Mapping.htm with datasets currently available for Bedrock, Geological Heritage, Groundwater, Karst, Geotechnical boreholes, Mineral locations. More recent viewers accessible from the same link include the National Landslide Viewer, the Aggregate Potential Mapping and the Geotechnical Viewer.

Please note that Geological Heritage data can now be viewed online on the GSI Public Data Viewer at: http://spatial.dcenr.gov.ie/imf/imf.jsp?site=GSI_Simple

There are two map layers under **'Geological Heritage':**
1.'Geological Heritage Sites Boundaries': a national dataset (one shapefile with boundary polygons) showing the nine County Geological Sites audits to date (Carlow, Clare, Kildare, Sligo; and Meath, Kilkenny, Fingal, Waterford and Roscommon, at July 2013).

County Geological Sites audit data are still available for download (as individual county shapefiles and site report pdfs; with direct links to individual reports in the most recent 5 audits) at: http://www.gsi.ie/Programmes/Heritage+and+Planning/County+Geological+Sites+Audits/

2.'Geological Heritage Sites No Boundaries': a national dataset (one shapefile with buffer polygons) covering all the other counties not yet audited, indicating the provisional location/extent of sites. These sites have buffers appropriate to their type (or theme), ranging between 200m, 500m and 1000m (for the largest landscape/glacial features). These are not 'mitigation' buffers, but an attempt to encompass the extent of the particular type of site.

These will all be available to download as well in the next few weeks from: http://www.dcenr.gov.ie/Spatial+Data/Geological+Survey+of+Ireland/GSI+Spatial+Data+Downloads.htm

Data Updates

The 'No Boundaries' data is provisional data only. As each county's geological heritage is audited, the 'No Boundaries' data will be replaced with the audited 'Boundaries' data, **so please re-visit the viewer regularly for updates. There can also be *ad hoc* updates of individual site data at any time.**

We anticipate that with necessary funding and the ongoing good partnerships of local authorities and the Heritage Council, that it will be possible to complete the remaining county audits within the next 5 years. Please note that all the above sites are of, at least, County Geological Site (CGS) status (some are also recommended for designation as Natural Heritage Areas) and are included in the relevant County Development Plan with associated protection policy/ies.

Other comments

Should you identify a Geological Heritage Site with buffer within your study area, please contact Sarah Gatley, Head of the Geological Heritage and Planning Programme at sarah.gatley@gsi.ie, for further information and possible mitigation measures if applicable.

As GSI's karst dataset is far from comprehensive due to important data gaps, GSI would welcome complementary data collected during any EIA; data which would be added to the national database. If you wish to contribute data, please contact Caoimhe Hickey for details (caoimhe.hickey@gsi.ie).

At a later stage, GSI would much appreciate a copy of reports detailing any site investigations carried out. The data would be added to GSI's national database of site investigation boreholes, implemented to provide a better service to the civil engineering sector. Data can be sent to Beatriz Mozo (beatriz.mozo@gsi.ie, 01-678 2795).

I hope that these comments are of assistance, and if the GSI can be of any further help, please contact me.

Yours sincerely,

_____
John Butler, Clerical Officer

APPENDIX B

Written Comments - SEA Environmental Report

Northern Ireland Environment Agency
www.doeni.gov.uk/niea/

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Belfast BT7 2JA

Mr Richard Bingham
Senior Engineer/Scientist –RPS
Consulting Engineers
Elmwood House
74 Boucher Road
Belfast
BT12 6RZ

Our Ref: SEA 12/13

26 November 2013

Dear Mr Bingham

Thank you for your email of 7 October 2013 enclosing links to the draft Plan and SEA for the NWRWMG Waste Management Plan 2013 – 2020. We have considered these documents and our comments are set out below.

Biodiversity, Flora and Fauna, and Landscape

Section 5.2.1
The baseline description of the environment has not included the impact of nitrogen deposition on habitats or the continuing loss and fragmentation of priority habitats. These impacts are of relevance when considering the locations of facilities as there is the potential for significant effects if poorly located.

Please note that the duty on public bodies to further the conservation of biodiversity is within the Wildlife and Natural Environment (WANE) Act 2011 not the Wildlife Order.

Section 5.3
This section highlights the evolution of the environment in the absence of this management plan but takes the baseline to be that under the previous waste management plan. Under this scenario it is assessed that there are no likely significant effects. However this does not recognise the potential for significant effects through the siting of facilities on or near sensitive priority habitats. This was recognised in the previous environmental report. It should still be recognised and mitigated.

Table 6.4
It should be noted that Planning Policy Statement 2: Natural Heritage has been recently reviewed and finalised in July 2013.

Section 10 – mitigation
The potential for significant effects on landscape from the siting of new facilities is recognised. However the potential cumulative significant effects on habitat, directly and indirectly has not been recognised within this table. There is also the potential for

implications with the Habitats Directive if facilities were located on or near a designated site that was sensitive to nitrogen deposition. There is also the potential for significant effects on biodiversity if new facilities were located on priority habitats. This effect should be recognised within the final plan/SEA Adoption Statement and mitigation highlighted.

Table 10.2 Environmental Monitoring
The table has indicated that the NI Biodiversity Strategy is reviewed every 3 years. However the WANE Act (2011) requires an implementation report of the strategy every 5 years.
We note that no monitoring was carried out for the previous SEA. We consider that monitoring of the locations of new facilities could be carried out to see if cumulatively they impact on priority habitats.

Air and Climate

Page 24 Section 5.2.4
Paragraph 1: the last line should say within NWRWMG there are 10 AQMA's, not 7.

Paragraph 3: Derry City Council has 5 AQMA's not 2, below is a list of them.

Creggan Road Air Quality Management Area NO2
Incorporating parts of Creggan Road, Windsor Terrace, Infirmary Road, Creggan Street, Marlborough Terrace and Lone Moor Road.

Dale's Corner Air Quality Management Area NO2
Incorporating all of Ebrington Terrace and Columba Terrace on Limavady Road and No's 1 – 19 Glendermott Road.

Buncrana Road/ Racecourse Road Air Quality Management Area NO2
Incorporating all of St Patrick's Terrace, all of Maybrook Terrace and numbers 1 -12 Collon Terrace to the South East

Spencer Road Air Quality Management Area NO2
Incorporating numbers 32 to 70a Spencer Road, Derry

Strand Road Air Quality Management Area NO2
Incorporating all of Aberfoyle Terrace (numbers 3 to 35), Derry, numbers 95 to 117 Strand Road and number 1 Baronet Street, Derry.

More detailed account could have been taken of the potential effects on air quality of certain waste treatment processes which may form part of any future strategy such as: anaerobic digestion; biomass combustion; and waste incineration. We suggest that this be addressed in the final Plan / SEA Adoption Statement.

Page 25 Section 5.2.4:

We have some comments on the text below from this section:

The latest environmental indicators as part of the NIEA State of the Environment Reporting show that in Northern Ireland in 2011, greenhouse gas (GHGs) emissions ***were just*** over 17% lower than in 1990, when monitoring of such emissions commenced.

It was estimated that between 1990 and 2011 the waste management sector in Northern Ireland contributed to 2% of total GHG emissions and represented 14% of total methane emissions. However, the figures relate to just 2011. In 1990 the % figures were higher.

"Emissions of GHGs from waste management in Northern Ireland have shown a significant decline of 60% in total for the sector and by 64% for landfill between 1990 and 2011, which is mainly due to UK wide reductions in the methane emissions estimates from industry and municipal waste water treatment (DECC, 2013)". This comment from (DECC, 2013) was referring to the short-term change between 2010 and 2011. The longer term reductions were 'due largely to the progressive introduction of methane capture and oxidation systems within landfill management.'

The link to the (DOE, 2013) is broken due to a wayward space (after 'statistical') http://www.doeni.gov.uk/ghg-inventory-statistical -bulletin-2011.pdf. It should be http://www.doeni.gov.uk/ghg-inventory-statistical-bulletin-2011.pdf

Cultural Heritage, including Architectural and Archaeological Heritage

Table 7.1: under Cultural Heritage.
It should be noted that a list of new heritage sites discovered due to activities and of those lost or destroyed because of new activities is not mutually exclusive. For example, a site could be discovered as part of the mitigation/monitoring of a new facility and destroyed by the development, although hopefully that would be through archaeological excavation which would allow the site to be recorded and the data incorporated within the NISMR.

P63-71 which discusses the potential impact of alternative measures comes to the conclusion that none of the alternatives will have any positive or negative impacts on cultural heritage. It is possible to argue that all of the alternatives will have a minor positive impact in that they will reduce the amount of waste and this will have a positive impact on cultural heritage sites and their settings (less physical waste and facilities to deal with or bury it).

Water

We note that some of our comments made at scoping stage have been included in the environmental report.

The assessment of river basin management plans should also include the potential impact on Local Management Area Action Plans. We recommend that the Register of Plans & Programmes below related to river basin management plans are fully considered within subsequent NWRWMG developments.

http://www.ni-environment.gov.uk/register_plansprogs_ne.pdf
http://www.ni-environment.gov.uk/register_plansprogs_nw.pdf
http://www.ni-environment.gov.uk/register_plansprogs_nb.pdf

Marine

Table 6.2
On page 42, third column, third row, mention is made of Marine Nature Reserves (MNR) designated under the Nature Conservation Amenity Lands Order. The legislation referring to MNRs was repealed by the Marine Act (NI) 2013, replacing MNRs with Marine Conservation Zones (MCZ). There is no mention in the document of the Marine and Coastal Access Act (2009) or the Marine Act (NI) 2013. Also a Marine plan is currently under preparation for NI.

Proposed alternatives

Page 55 Section 8.1
Third bullet point - mentions the "development of a systematic reporting mechanism can be used by all Councils in contracts." We think this could be more fully addressed. Also with monitoring performance we consider that the Group could have a more overseeing role.

A Review of the Waste Management Plan 2006-2020 Draft A

There is no mention of the Marine environment within the general body of the two main documents, Review of Waste Management Plan 2006-2020, Parts 1 & 2. Given the fact this plan covers a significant coastal region it would be expected that mention of the treatment of processed fish waste (we have evidence that fishing vessels tend to dispose of fish heads and shells over the side when in harbours such as Portrush) and the management of decommissioning of boats. There is a tendency along the coast to simply abandon old boats. There is also no mention of waste handling facilities at ports and harbours.

The Executive Summary (ES-2) states that the defined objectives of the Plan remain unchanged. In relation to Objective 8 "To identify and manage risks (financial, planning and contractual) in a systematic manner, to ensure that risks lie with those parties best placed to manage them effectively." We could not see where this Objective was adequately or directly covered in either document.

Page 5-22, 5.107 – this text should be amended as further legislation to increase the levy on plastic bags has been placed on hold.

Page 6-6, paragraph 6.33 - PAS 100 text should be updated.

Page 7-3, 7.16 - provides very little information on "The Residual Waste treatment Project". As this forms a major part of the updated Plan we are of the opinion that more detail needs to be provided.

Page 7-15, 7.60 & 7.61 - Treatment of Residual Wastes – there is very little detail and there is broad text. As above we are of the opinion that more detail needs to be provided to adequately cover this important topic (Waste Hierarchy, contracts etc).

Page 7-22, 7.92 states that "The Residual waste Project will result in 16,000 tonnes (13% of the input residual waste) being recycled through the MBT process described above." We couldn't find this detail or how the figures were arrived at. We are of the opinion that more detail should be provided.

Page 7-24, 7.101 - in relation to the proposed 60% recycling target, the draft Plan states to "ask the Department to examine how resources can be made available." We consider that the draft Plan should be addressing this new target and putting forward means of meeting this target.

Page 7-29, 7.125 - Independent Auditing - "Councils are to instigate and facilitate an independent audit of recycling and recovery performance..." We don't believe this covers Objective 8 above.

Page 7-30, 7.126 "Commit resources to data collection and management to monitor and assess performance. This includes the development of a systematic mechanism that can be used by all Councils in contracts." As above we think this should be more fully addressed.

Page 8-19, 8.90, Illegal Dumping – there is a very brief one sentence which talks about education and awareness campaigns. This is an important issue that we feel warrants more detail.

Page 9-2, 9.9 - the revisions should also include the inclusion of the 2007 SIC code.

Section 12, 12-11, 12.37 - we couldn't find any involvement of the Group or councils in the management & control of C,D & E wastes. Most of the roles and responsibilities are placed upon "NIEA".

Page 13-6, Tyres on Farms - some of the text needs to be amended as it doesn't fully cover exemption criteria and the Single Farm Payment registration approach.

Page 15-1, 15.6 & 15.7 – these sections talk about monitoring and review. This needs to be expanded in light of recent issues and discussions with Group Councils.

Page 15-2, 15.9 - "Group will consider management information, collected from the individual Councils..." should the Group not be applying more of an overseeing role?

Please contact the SEA Team at seateam@doeni.gov.uk should you have any queries or require clarification.

Yours sincerely

M. Hammond

Dr Mark Hammond
SEA Coordinator

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BT12 6RZ
Northern Ireland

27th November 2013 Our Ref: SCP130701.2

Re. SEA of the NWRWMG Waste Management Plan 2013-2020

Dear Mr Bingham

The Environmental Protection Agency (EPA) acknowledges your notice, dated 7th October 2013, regarding the above and welcomes the opportunity to make a submission. Please find attached the EPA's submission in relation to the Draft North West Region Waste Management Group Waste Management Plan 2013-2020, hereafter referred to as "the Plan", and the associated SEA Environmental Report. This submission is intended to promote integration of environmental considerations identified during the SEA process in the Plan with particular reference to transboundary related aspects.

Specific comments on the Plan and SEA Environmental Report are provided in Appendix I of this submission for your consideration. It should be noted that this submission is not a formal SEA transboundary consultation submission and should be treated as part of EPA's on-going interaction with the consultants during the Plan making and associated SEA processes. You are referred also to our previous submission at the scoping stage of the SEA process as attached.

Should you have any queries or require further information in relation to the above please contact Cian O'Mahony at c.omahony@epa.ie.

I would be grateful if an acknowledgement of receipt of this submission could be sent electronically to the following address: sea@epa.ie.

Yours Sincerely

Tadhg O'Mahony

Tadhg O'Mahony
Senior Scientific Officer
SEA Section
Office of Environmental Assessment
Environmental Protection Agency
Regional Inspectorate
Inniscarra,County Cork
Republic of Ireland

Appendix I

Specific Comments on the Draft North West Region Waste Management Group (NWRWMG) Waste Management Plan 2013-2020 and Strategic Environmental Assessment (SEA) Environmental Report

The comments below relate to the consideration of transboundary environmental aspects and the integration of environmental considerations and recommendations that have been set out in the Environmental Report, within the Draft North West Region Waste Management Group Waste Management Plan, hereafter referred to as "the Plan".

The EPA is a statutory Environmental Authority under the Irish SEA Regulations as transposed from the SEA Directive. This submission is not a formal SEA transboundary consultation submission and should be treated as part of EPA's on-going interaction with the consultants during the Plan making and associated SEA processes.

SECTION 1: DRAFT NWRWMG WASTE MANAGEMENT PLAN 2013-2020

It is noted that the Plan identifies the various waste management streams / activities currently undertaken in the Plan area (Local Authority Collected Municipal Waste, Commercial and Industrial Waste, Packaging Waste, Hazardous Wastes, Construction-Demolition-Excavation wastes, Agricultural Wastes and related waste streams such as WEEE and ELV Tyres, batteries, sewage sludge and clinical waste). The Plan also provides detailed information on the amount of wastes generated/exported/treated in keeping with existing waste management targets and this is acknowledged.

The various policy measures and actions described for the different waste streams are noted. In particular, the on-going collaboration with the Irish Department of the Environment, Community and Local Government (DECLG) to help coordinate waste management policy / guidance to facilitate closer cooperation is welcomed. In addition, the on-going consultation with the relevant border region local authorities in context of identifying and addressing potential transboundary environmental effects is also acknowledged.

The inclusion of the *SEA Monitoring and Review* section in *Chapter 15 Implementation, Monitoring and Review* is noted. Consideration should however, be given to highlighting how the various environmental vulnerabilities included in *Table 15.1 Environmental Monitoring* are afforded protection in the objectives in the Plan. Consideration should be given to including specific measures to protect environmental vulnerabilities within and adjacent to the Plan area.

Your attention is brought to the Irish *National Waste Report* (EPA, 2013) which should be taken into account in particular in relation to information on repatriated waste from historical dumping, wastes exports etc.). There would be merits in a transboundary perspective to integrating this as appropriate in the relevant tables and statistics in the Plan.

The Irish Governmental Policy document "*A Resource Opportunity – Waste Management Policy in Ireland*" (DECLG, 2012) promotes measures to ensure that the storage and export of waste material is strictly policed so that:

- *no environmental damage arises from the storage of such materials prior to export;*
- *any exports taking place fully respect the requirements of the transfrontier shipment regulations, avoiding both the environmental and reputational damage which a breach of the regulations would cause; and*
- *exports are managed in an environmentally sound manner in the country of destination.*

There would be merits in reflecting these specific measures, where relevant and appropriate in the Policy Document have been taken into account, where relevant and appropriate in the Plan.

There would also be merits in incorporating as appropriate, the relevant transboundary aspects of the *National Difficult Waste Facility Study* (EPA, 2010). It should be noted that an all-island approach was taken in the preparation of the Study in collaboration with Waste Authorities in Northern Ireland. See:

http://www.epa.ie/pubs/reports/waste/haz/nationaldifficultwastefacilitystudy.html

The review of Republic of Ireland's *National Hazardous Waste Management Plan*, currently underway, should also be considered, where relevant and as appropriate in finalising the Plan.

SECTION 2: ENVIRONMENTAL REPORT

The comments put forward below for consideration relate to the Strategic Environmental Assessment Process and the Environmental Report.

1. Existing Environment

The environmental baseline as provided in *Section 5 – Baseline Environmental* is noted. There would however be merits in providing relevant maps showing the location of both environmental sensitivities (fisheries/shellfisheries, designated habitats and species, water quality etc.) within the Plan area and adjacent to the Plan area, in Northern Ireland and in the Republic of Ireland (RoI). This is of relevance in the context of potential transboundary effects.

2. Assessment of Environmental Effects

The potential for cumulative transboundary effects in combination with other relevant Plans/ Programmes and Projects, should be considered and described where relevant and appropriate.

3. Monitoring Measures

There would be merits in including the *Irish National Waste Report 2011* (EPA, 2013) and the *National Hazardous Waste Management Plan 2008-2012* (EPA, 2008) (and any revisions) as potential data sources for monitoring waste activities in the RoI. These and other relevant reports are accessible at http://www.epa.ie/pubs/reports/waste/ which may be useful in monitoring waste and related environmental data.