



Llywodraeth Cymru
Welsh Government

Environment (Wales) Bill

Explanatory Memorandum
Incorporating the Regulatory Impact
Assessment and Explanatory Notes

January 2016

ENVIRONMENT (WALES) BILL

Explanatory Memorandum to the Environment (Wales) Bill

This Explanatory Memorandum has been prepared by the Department for Natural Resources of the Welsh Government and is laid before the National Assembly for Wales.

It was originally prepared and laid in accordance with Standing Order 26.6 in May 2015, and a revised Memorandum is now laid in accordance with Standing Order 26.28.

Member's Declaration

In my view the provisions of the Environment (Wales) Bill, introduced by me on the 11 May 2015, are within the legislative competence of the National Assembly for Wales.

Carl Sargeant AM

Minister for Natural Resources
Assembly Member in charge of the Bill

19 January 2016

Contents page

PART 1

- | | |
|---|---------|
| 1. Description | Page 7 |
| 2. Legislative Background | Page 8 |
| 3. Purpose and intended effect of the legislation | Page 10 |
| 4. Consultation | Page 66 |
| 5. Power to make subordinate legislation | Page 78 |

PART 2 – REGULATORY IMPACT ASSESSMENT

- | | |
|---------------------------------|----------|
| 6. Options - costs and benefits | Page 111 |
| 7. Specific impact assessments | Page 310 |
| 8. Competition Assessment | Page 321 |
| 9. Post implementation review | Page 324 |

- | | |
|------------------------------------|----------|
| ANNEX 1 – Explanatory Notes | Page 329 |
|------------------------------------|----------|

Glossary of Acronyms

Agricultural Land Tribunal (ALT)

Area of Outstanding Natural Beauty (AONB)

Bags for Life (BFL)

Centre for Environment, Fisheries and Aquaculture Science (Cefas)

Conference of the Parties (COP)

Construction and Demolition (C&D)

Conventional High Density Polyethylene Bag (HDPE)

Energy from Waste (EfW)

Environmental Impact Assessment (EIA)

Environmental Statement (ES)

European Commission (EC)

European Marine Site (EMS)

European Union (EU)

European Union Emission Trading Directive (EU ETS)

Flood Risk Management Wales Committee (FRMW)

Food and Environment Protection Act 1985 (FEPA)

Full-Time Equivalents (FTEs)

Geographic Information System (GIS)

Government of Wales Act 2006 (GoWA 2006)

Greenhouse Gas (GHG)

Gross Domestic Profit (GDP)

Heavy duty bag Low Density Polyethylene Bag (LDPE)

Higher Executive Officer (HEO)

Intergovernmental Panel on Climate Change (IPCC)

Internal Drainage Boards (IDBs)

Knowledge Strategy Planning (KSP)

Land Drainage Act 1991 (LDA 1991)

Local Biodiversity Action Plans (LBAP)

Marine and Coastal Access Act 2009 (MCAA)

Marine Management Organisation in England (MMO)

Marine Works (Environmental Impact Assessment) Regulations 2007 (MWR)

Main Expenditure Group (MEG)

Millions of Metric Tonnes of Carbon Dioxide Equivalent (Mt CO₂e)

National Farming Union Cymru (NFU)

National Natural Resources Policy (NNRP)

Natural Environment and Rural Communities (NERC)

Natural Resource Management (NRM)

Natural Resources Wales (NRW)

Net Present Value (NPV)

Non Governmental Organisations (NGO)

Non-woven Polypropylene bag (PP)

Payments for ecosystem services (PES)

Present Value (PV)

Public Services Boards (PSBs)

Regulatory Impact Assessment (RIA)

Rural Development Programme (RDP)

Senior Executive Officer (SEO)

Single Use Carrier Bags (SUCBs)

Site Protection Notice (SPN)

Sites of Special Scientific Interest (SSSIs)

Special Area of Conservation (SAC)

Special Protection Area (SPA)

State of Natural Resources Report (SoNaRR)

Strategic Environment Assessment (SEA)

Sustainable Development (SD)

United Kingdom Committee on Climate Change (UKCCC)

United Kingdom National Ecosystem Assessment Follow On Phase, Work Package 1 (UKNEAFO, WP1)

United Nations (UN)

United Nations Convention on Biological Diversity (UN CBD)

United Nations Convention on the Rights of the Child (UNCRC)

United Nations Framework Convention on Climate Change (UNFCCC)

Waste Resources and Action Programme (WRAP)

PART 1

Chapter 1: Description

1. The overarching aims of the Environment (Wales) Bill (“the Bill”) are to put in place legislation that will enable Wales’ resources to be managed in a more proactive, sustainable and joined-up manner and to establish the legislative framework necessary to tackle climate change. The Bill supports the Welsh Government’s wider work to help secure Wales’ long term well-being, so that it benefits from a prosperous economy, a healthy and resilient environment and vibrant, cohesive communities.
2. The Bill makes provision to help plan and manage Wales’ natural resources at a national and local level, through specific requirements for a State of Natural Resources Report (SoNaRR), a National Natural Resources Policy (NNRP) and area statements. The provisions will enable greater integration and simplification of policies, plans and programmes where this is consistent with existing statutory duties. The Bill provides Natural Resources Wales (NRW) with a general duty that aligns fully with the statutory principles for the sustainable management of natural resources, and provides NRW with enhanced powers to undertake land management agreements and experimental schemes in line with those principles. The Bill also provides public authorities with a reshaped requirement to seek to maintain and enhance biodiversity.
3. The Bill also includes provisions to tackle climate change, through statutory emission reduction targets and carbon budgeting to support their delivery. It also includes provisions to improve the use of resources in relation to carrier bags and waste management. The sections on carrier bag charging enable improvements to the existing scheme for single use carrier bags and those on waste provide the Welsh Ministers with powers to take action to achieve higher levels of recycling for business waste, food waste treatment and energy recovery. The Bill also clarifies the law for a number of existing environmental regulatory regimes including marine licensing, shellfisheries management, land drainage and flood risk management.

Chapter 2: Legislative Background

4. Part 4 of the Government of Wales Act 2006 (GoWA 2006) gives the National Assembly for Wales the legislative competence to make the provisions in the Environment (Wales) Bill (“the Bill”).
5. Section 108 provides that a provision of an Act of the Assembly may be within the Assembly’s legislative competence if it relates to one or more of the subjects listed under any of the headings in Part 1 of Schedule 7 and does not fall within any of the exceptions specified in that Part (whether or not under that heading or under any of those headings). Section 108 also provides that ‘a provision must neither apply otherwise than in relation to Wales nor confer, impose, modify or remove (or give power to confer, impose, modify or remove) functions exercisable otherwise than in relation to Wales’.
6. Provisions in the Bill relate to the following subjects in Part 1 of Schedule 7 to the GOWA 2006, as set out below:

Agriculture, forestry, animals, plants and rural development

1 Agriculture. Horticulture. Forestry. Fisheries and fishing. Animal health and welfare. Plant health. Plant varieties and seeds. Rural development. In this Part of this Schedule “animal” means – all mammals apart from humans, and all animals other than mammals; and related expressions are to be construed accordingly.

Exceptions—

Hunting with dogs.

Regulation of scientific or other experimental procedures on animals.

Import and export control, and regulation of movement, of animals, plants and other things, apart from (but subject to provision made by or by virtue of any Act of Parliament relating to the control of imports or exports)—

(a) the movement into and out of, and within, Wales of animals, animal products, [. . .] plants, plant products and other things related to them for the purposes of protecting human, animal [or plant] health, animal welfare or the environment or observing or implementing obligations under the Common Agricultural Policy, and

(b) the movement into and out of, and within, Wales of animal feedstuff. . . fertilisers and pesticides (or things treated by virtue of any enactment as pesticides) for the purposes of protecting human, animal [or plant] health or the environment.

Authorisations of veterinary medicines and medicinal products.

Environment

- 6 *Environmental protection, including pollution, nuisances and hazardous substances. Prevention, reduction, collection, management, treatment and disposal of waste. Land drainage and land improvement. Countryside and open spaces (including the designation and regulation of national parks and areas of outstanding natural beauty). Nature conservation and sites of special scientific interest. Protection of natural habitats, coast and marine environment (including seabed). Biodiversity. Genetically modified organisms. Smallholdings and allotments. Common land. Town and village greens. Burial and cremation, except coroners' functions*

Water and flood defence

- 19 *Water supply, water resources management (including reservoirs), water quality and representation of consumers of water and sewerage services. Flood risk management and coastal protection.*

Exceptions—

Appointment and regulation of any water undertaker whose area is not wholly or mainly in Wales.

Licensing and regulation of any licensed water supplier [water supply licensee] within the meaning of the Water Industry Act 1991 (c 56), apart from regulation in relation to licensed activities using the supply system of a water undertaker whose area is wholly or mainly in Wales].

7. None of the exceptions specified in Part 1 of Schedule 7 to the GoWA 2006 are applicable.

Chapter 3: Purpose and intended effect of the legislation

Purpose of this chapter

8. Chapter 3 provides an overview of the background and context to the Environment (Wales) Bill (“the Bill”) and includes a summary of the proposed legislation. This chapter then addresses each part of the Bill and describes the background, current position, purpose and intended effect.

Current position

9. The 2011 Welsh Government’s ‘*Programme for Government*’ built on the 2010 ‘*A Living Wales: a new framework for our environment, countryside and seas*’ consultation in setting out a number of commitments in relation to natural resource management, including the introduction of an Environment Bill.
10. In 2012, the ‘Sustaining a Living Wales’¹ Green Paper set out proposals on the scope and opportunities for simplifying how we manage and regulate the environment to deliver better outcomes for the people of Wales. The central proposal in the Green Paper was to move towards an ecosystem approach and sought views on how natural resource management planning might be developed at local and national levels to enable better decision-making. The consultation responses to the Green Paper, like those to the 2010 consultation, showed strong support for a fresh approach to planning and managing natural resources in Wales.
11. In 2013, the Welsh Government published a White Paper for an Environment (Wales) Bill². The White Paper set out a framework for better management of resources, focusing on Wales’ natural resources and waste. In doing so, it included specific proposals for a new area-based approach to integrate natural resource management at a local level, underpinned by the ecosystem approach and the United Nations’ Convention on Biological Diversity (CBD) principles.
12. The development of the White Paper was one of a package of actions undertaken to enable more joined up and proactive management of Wales’ natural resources. This included the establishment of Natural Resources Wales in 2013, drawing together three historically separate delivery bodies into a single, integrated natural resource body for Wales. Its creation helped to integrate the existing regulatory functions within one organisation, but the organisation remains bound by the weaknesses in the existing legislative framework, consisting of more than 230 pieces of statute. The White Paper proposals were therefore designed to address those weaknesses and enable further integration, as well as supporting the Government’s wider objectives in relation to sustainable development.

¹ In the green paper this was termed the ‘ecosystem approach’. <http://www.cbd.int/ecosystem>

² Towards the Sustainable Management of Wales’ Natural Resources: Consultation on proposals for an Environment Bill’: <http://wales.gov.uk/consultations/environmentandcountryside/environment-bill-white-paper/?lang=en>

13. The Bill sets out the detailed provisions to translate the long term policy commitments into legislation which will enable more sustainable management of Wales' natural resources.

Ecosystem approach and the United Nations' Convention on Biological Diversity (CBD)

14. The "ecosystem approach" was developed by the UN CBD in 1992 and comprises twelve principles (see Table 1).

Table 1: 12 Principles of the Ecosystem Approach

<i>Ecosystem Approach Principle</i>
1 – Societal Choice: The objectives of management of land, water and living resources are a matter of societal choices.
2 – Localised Decisions: Management should be decentralized to the lowest appropriate level
3 – Adjacent Effects: Ecosystem managers should consider the effects (actual or potential) of their activities on adjacent and other ecosystems
4 – Economic Drivers: Recognizing potential gains from management, there is usually a need to understand and manage the ecosystem in an economic context. Any such ecosystem-management programme should: A) Reduce those market distortions that adversely affect biological diversity; B) Align incentives to promote biodiversity conservation and sustainable use; C) Internalize costs and benefits in the given ecosystem to the extent feasible.
5 – Resilience: Conservation of ecosystem structure and functioning, in order to maintain ecosystem services, should be a priority target of the ecosystem approach
6 – Integrity: Ecosystem must be managed within the limits of their functioning
7 – Spatial and Temporal Scale The ecosystem approach should be undertaken at the appropriate spatial and temporal scales
8 – Temporal Scale: Recognizing the varying temporal scales and lag-effects that characterize ecosystem processes, objectives for ecosystem management should be set for the long term.
9 – Managing Change: Management must recognize the change is inevitable
10 – Balancing conservation and use of biodiversity: The ecosystem approach should seek the appropriate balance between, and integration of, conservation and use of biological diversity

11 – Evidence: The ecosystem approach should consider all forms of relevant information, including scientific and indigenous and local knowledge, innovations and practices.

12 – Stakeholder Engagement: The ecosystem approach should involve all relevant sectors of society and scientific disciplines.

15. The CBD defines the approach “*as a strategy for the integrated management of land, water and living resources that promotes conservation and sustainable use in an equitable way*”. The approach seeks to maintain the integrity and functioning of ecosystems as a whole to avoid rapid undesirable ecological change. The approach recognises that humans are an integral component of ecosystems and equally that ecosystems provide a range of services that underpin human wellbeing and wider society. In effect, it puts both humans and natural resources at the centre of the decision-making framework. The CBD model is a framework for thinking ecologically that results in action based on holistic decision-making³.
16. The role of the ecosystem approach in the management of natural resources is to make explicit the link between the status of natural systems and ecosystem services that support human well-being. It therefore applies sustainable development to the management of natural resources in looking at the need to sustain ecological systems, human communities, and economic infrastructure concurrently. In this way, the application of an ecosystem approach to the management of natural resources is crucial for sustainable development.
17. The CBD defined ecosystems as “*a dynamic complex of plant, animal and micro-organisms and their non-living environment interacting as a functional unit*”⁴. The key feature of ecosystems is that they are fully integrated systems with ‘emergent properties’ arising from interactions between the living and non-living elements of which they are composed.
18. The ecosystem approach has a broad scope that goes beyond ecosystems themselves to encompass social, cultural and economic factors that depend on the services ecosystems provide. Ecosystem services are the benefits derived from ecosystems. Some of these benefits are quantifiable, for example the provision of food, fibre or fresh water (provisioning services). Regulating services include the benefits obtained from the regulation of ecosystem processes, which includes for example climate regulation and flood alleviation (regulating services). Cultural benefits are also derived from natural settings like landscapes and seascapes which include recreation, tourism, cultural heritage and aesthetic experience (cultural services). The final category of services are those, which enable ecosystems to remain functioning and therefore able to continue providing multiple benefits (supporting services). These underpin all the other services and include soil formation, nutrient cycling and water cycling. These benefits can be

³ Convention on Biological Diversity, COP 7 Decision VII/11

⁴ Article 2 Convention on Biological Diversity 1992

direct or indirect and the terms services and benefits are sometimes used interchangeably. The Bill however refers to “benefits” and therefore this formulation is used throughout this Explanatory Memorandum.

Case for change

19. Wales’ natural resources are not only a valuable asset but provide essential benefits. These include benefits that range from the air we breathe to the food we eat; to the land we farm or develop, the seas we fish to the water we use for drinking or cooling heavy industry. Wales’ natural resources are as fundamental to the long-term success of the economy as they are to the quality of our natural environment and the well-being of communities.
20. The current UK and EU legislative framework of environmental statutory duties and regulatory functions has evolved gradually over many decades. It has largely developed to address changing pressures and specific environmental problems, often taking a narrow focus. This approach to regulation – reactive and often viewed in isolation from economic and social policy and needs - has led to a complex mix of regulation that does not always work together towards a common aim of improving Wales’ long term future.
21. Furthermore, the evidence shows that the capacity of our natural resources to continue to provide the services - on which we all depend - is diminishing. If we are to continue to benefit from them – and avoid compromising the ability of future generations to enjoy the same benefit – we need to manage them effectively to enable Wales to develop sustainably and achieve the Well-being Goals.
22. Key evidence, such as the 2011 *National Ecosystem Assessment* on the state of UK ecosystems, shows a continuing decline in biodiversity with around a third of the services provided by our natural environment either degraded or in decline. These findings were also reflected in the 2013 *State of Nature* report. Scientific evidence also shows that the impacts of climate change are likely to continue and exacerbate these problems. Overall, there is a substantial evidence base which highlights that more integrated management of our natural resources is needed, which better recognises the value of our ecosystems and the services they provide.
23. The UK-wide 2010 *Making Space for Nature* report made a case for a refreshed ‘restorative approach’ which rebuilds nature and creates a more resilient natural environment for the benefit of wildlife and ourselves.
24. In Wales, the National Assembly’s Sustainability Committee Inquiry into Biodiversity, published in 2011⁵, recommended that the Welsh Government should adopt a strategic ecosystems approach to the management of biodiversity in the wider countryside.

⁵ *National Assembly For Wales Sustainability Committee – Inquiry into Biodiversity in Wales*
http://www.assembly.wales/en/bus-home/bus-third-assembly/3-committees/3-scrutiny/3-sc/inquiries_sd/sc3-bioinq/Pages/sc3-bioinq.aspx

25. In introducing the Bill, the Welsh Government is therefore taking action to put in place a more integrated approach within legislation, which responds to the evidence and the Sustainability Committee recommendations.
26. Wales is not alone in developing legislation that takes a more integrated approach to these issues. The United Nations' CBD has endorsed an 'ecosystem approach' as its primary framework for integrated management of land, water and living resources. The EU Marine Strategy Framework Directive (2006)⁶ also adopts a similar strategic approach for Member States to achieve good environmental status of marine waters by applying an ecosystem-based approach to the management of human activities that may have an impact on the marine environment, while enabling the sustainable use of marine goods and services. Another example of an ecosystem-based approach is provided in the Water Framework Directive⁷. New approaches are also being developed by other member states for example the Netherlands has introduced more integrated approaches in its policy and legislation⁸.
27. The Welsh Government has drawn on the approaches put in place through these statutory frameworks in designing the provisions within the Bill to improve the planning, management and use of natural resources. In doing so, the Bill recognises that the resilience of ecosystems and the benefits they provide are essential to the well-being of Wales, thereby complementing the legislative framework within the Well-being of Future Generations (Wales) Act 2015.
28. The approach to the Bill is built on five years of policy development, including both green and white paper stages. In doing so, it not only responds to the key trends seen for example through the decline in biodiversity, but crucially it also makes provision to tackle the challenges such as climate change that Wales faces going forward.

⁶ 2008/56/EC http://ec.europa.eu/environment/marine/eu-coast-and-marine-policy/marine-strategy-framework-directive/index_en.htm

⁷ 2000/60/EC http://ec.europa.eu/environment/water/water-framework/index_en.html

⁸ Netherlands Ministry of Economic Affairs, *The Natural Way Forward, Government Vision 2014 and the Environment and Planning Act 2015*

Background, current position, purpose and intended effect

29. The following section describes the purpose and intended effect of each of the Bill's parts. Each element includes the background to the provisions in the Bill, the current position, the purpose of the legislation and the intended effect.

Sustainable Management of Natural Resources (Part 1)

Natural Resources, sustainable management of natural resources and principles of sustainable management of natural resources

Background

30. The UK National Ecosystem Assessment⁹ published in July 2011 underlines that 'our wealth as a nation and our individual well-being depend critically upon the natural environment. It provides us with the food, water and air that are essential for life and with the minerals and raw materials for our industry and consumption. This assessment showed a continuing decline in biodiversity with around a third of the services provided by our natural environment being degraded or in decline.

31. These findings are also reflected in the 2013 *State of Nature*¹⁰ report. The report assessed the population or distribution trends of 3,148 species in the UK and found that of these 60 per cent have declined over recent decades, and more than one in ten of all the species assessed are under threat of disappearing from our shores altogether.

Current position

32. Much of the current legislative framework in relation to the environment predates the adoption¹¹ and implementation¹² of the ecosystem approach by the Convention on Biological Diversity. However, there has been a move towards applying an ecosystem-based approach in recent years (e.g. Water Framework Directive and the Marine Strategy Framework Directive) and therefore a shift from a focus solely on specific environmental media or activities that impact on those media in isolation. An ecosystem-based approach is concerned with ensuring that management decisions do not adversely affect the ecosystem function and productivity, so that harvesting of target stocks, for example in relation to fisheries (and resultant economic benefits) is sustainable in the long-term.¹³

33. However, the application of the approach and an emphasis on the resilience of ecosystems and the services they provide is not enshrined within our legislative framework. This means that the sustainable management of natural resources and the supporting principles are not currently provided for in legislation in Wales or in UK statute.

⁹ UK National Ecosystem Assessment, 2011. <http://uknea.unep-wcmc.org/Resources/tabid/82/Default.aspx>

¹⁰ State of Nature Report, 2013.

<http://www.rspb.org.uk/ourwork/science/stateofnature/index.aspx>

¹¹ Convention on Biological diversity, COP 5, Decision V/6

¹² Convention on Biological diversity, COP 7, Decision VII/11

¹³ Joint Nature Conservation Committee <http://jncc.defra.gov.uk/page-2518>

Purpose of legislation

34. Part 1 of the Bill introduces an integrated decision-making process to the management of natural resources. This includes three key elements:

- What is to be managed (natural resources).
- What sustainable management is and its objective (sustainable management of natural resources).
- How to achieve that objective (principles of sustainable management of natural resources).

35. Part 1 provides for a number of mechanisms to deliver the sustainable management of natural resources, in particular:

- State of Natural Resources Report (SoNaRR) – NRW will be under a duty to provide a report which provides the evidence base for policy on how natural resources are managed and sustainably used.
- National Natural Resources Policy (NNRP) – the Welsh Ministers will be under a duty to prepare, publish and implement a NNRP, which will set out the Welsh Government's priorities in relation to the management of natural resources.
- Area statements – will set out the key risks that need to be carefully managed and mitigated and the key opportunities for the sustainable use of natural resources at an area level.
- The revised purpose of NRW – the Bill provides NRW with an updated general purpose to ensure that it is in line with the Bill.
- The purpose of an experimental scheme – this will enable NRW to trial innovative approaches for more sustainable management of natural resources.

36. The purpose of the definitions is to provide clarity in relation to the provisions, which introduce these mechanisms and therefore ensure the bodies responsible for carrying out these functions know what is required of them. This includes:

- Providing clarity to the scope of natural resources. The list reflects the living (biotic) and non-living (abiotic) components of our natural environment and therefore represents the resources as individual components that make up our natural resources. The definition does not include descriptions of scales at which individual components co-exist and interact such as habitat or landscape as scale is included within the principles of sustainable management of natural resources.
- Clarifying that the sustainable management of natural resources includes not only how our natural resources are used but also includes the impacts of other activities on those resources and ecosystem resilience, for example the impact of pollution from production processes.
- Clarifying and explaining the process to be applied and the actions to be taken and factors to be taken into consideration.

37. The purpose of sustainable management of natural resources is:

- To reflect the role that our natural resources play in contributing to the achievement of all the well-being goals introduced by the Well-being of Future Generations (Wales) Act 2015.
- To maintain and improve the condition of our ecosystems and emphasise the role of ecosystem benefits (or services) within the decision-making process.
- To ensure that management and use of our natural resources is undertaken in such a way that does not diminish the ability of those resources or of ecosystems to be able to deliver multiple social, economic and environmental benefits over the long-term.
- To ensure that the impact of activities on our natural resources and ecosystems is considered in terms of how they affect the resilience of our ecosystems and consequently their ability to provide social, economic and environmental benefits for both current and future generations.
- To ensure that a wide range of relevant ecosystem benefits can be considered and valued within the decision-making and delivery process. This includes the value we place on our natural resources for their own sake.
- To reduce the negative impacts generated by the use of natural resources.

38. Ecosystem benefits, for the purpose of the Bill are:

- Supporting services, for example nutrient cycling, oxygen production and soil formation. These are the services that are necessary for the production of all other services.
- Provisioning services, for example food, fibre, fuel and water. These are the products obtained from ecosystems.
- Regulating services, for example climate regulation, water purification and flood protection. These are the benefits obtained from the regulation of ecosystem processes.
- Cultural services, for example education, recreation, and aesthetic benefits. These are the cultural benefits people obtain from ecosystems.

39. The principles which underpin the sustainable management of natural resources provide the method by which its objective is to be delivered. These principles incorporate the ecosystem approach as adopted by the UN Convention on Biological Diversity.

40. The purpose is to clearly set out the principles which are applied to the delivery of a number of the Bill products (for example the preparation of the NNRP) and in relation to NRW, to describe how it carries out the sustainable management of natural resources across its functions. The purpose of the principles is to encourage:

- Recognition of the interdependence of social, economic and environmental benefits and of the systems providing different flows of social, economic and environmental benefits.
- An understanding that the state of natural resources and ecosystems is linked to the benefits they provide.
- Recognition of the multiple, rather than singular, benefits provided by our natural resources and ecosystems.

- An adaptive management approach and evidence based decision-making.
- A collaborative approach to decision making, involving relevant stakeholders, civil society and local communities. This includes the need to make appropriate arrangements for public participation in decision-making. Decisions are not taken in isolation but in consideration of the evidence and information gathered from other relevant stakeholders.
- The consideration of the long-term impacts of short-term gains, for example including the value of an ecosystem and the services it provides plus any future costs arising from any increase in environmental risks identified.
- Decision-making at the appropriate scale to address an issue or deliver an opportunity. The scale of an area needing not only to be ecologically appropriate but also socially, economically and culturally appropriate. Landscapes being an example of a scale, which is ecologically, socially, economically and culturally important. National parks are also an example.
- The use of the preventive principle, which includes taking actions, which can avert serious or irreversible harm to ecosystems. Taking into consideration the key characteristics of resilient ecosystems, which are the connectivity, diversity, scale, condition and adaptability of ecosystems.

Intended effect

41. The intended effect of the sustainable management of natural resources provisions is to support the management of natural resources so as to maintain and enhance the capacity of ecosystems to maintain their own supporting systems, whilst being able to continue to deliver social, environmental and economic benefits not only in the short-term but for the long-term. This includes aiming to improve resource efficiency.
42. The intention is to ensure that both the living and non-living components of the natural environment are included. This will ensure that the inter-relationships and inter-connections between the biotic and abiotic are considered, in both the approach to and in the delivery of sustainable management of natural resources and the services that are provided by our ecosystems.
43. The definition of natural resources is not intended to include any resource that has undergone a production process, however the impacts of production processes on natural resources is covered by the definition of sustainable management of natural resources.
44. The sustainable use of secondary resources (those that have undergone a production process) can help to sustainably maintain, enhance and use natural resources. They reduce pressures on the need to use raw materials therefore potentially reducing the use of finite resources. In addition, regulating how these secondary resources are produced can reduce the impact of pollution, for example, on the condition of ecosystems.
45. The objective is to ensure that in managing natural resources the long term resilience of ecosystems and the benefits they provide are fully considered. As such considering the potential impact of decisions, which might have an impact

on the benefits provided by Wales' natural resources and ecosystems, will ensure they are maintained.

46. The sustainable management of natural resources through the application of the principles is designed to help meet current needs without adversely affecting the ability of future generations to meet their needs by ensuring:

- Impacts on the resilience of ecosystems are considered in decision-making and natural resources are used in a way and at a rate that ensures that ecosystems can continue to deliver regulating, supporting, provisioning and cultural services.
- Negative impacts on ecosystems are minimised or averted where practicable.
- Decisions are not based solely on short-term impacts and benefits but also on medium and long term consequences. This includes the time lags and feedback times for ecosystems to respond to human interventions.
- Integration of the social, economic and environmental impacts and opportunities of using natural resources are considered within decision-making.
- Decisions on natural resources or ecosystems are not considered in isolation and cumulative impacts are factored in to decisions.
- Improved understanding of both the connections and dependencies within and between ecosystems and between social, economic and environmental factors;
- Opportunities for stakeholder and public engagement.

General purpose of NRW

Background

47. The establishment of NRW as a single integrated environmental body was one of the delivery steps identified in “A Living Wales” to simplify institutional structures and regulatory processes.
48. Natural Resources Wales was established by the Natural Resources Body for Wales (Establishment) Order 2012 (‘the Establishment Order’). It acquired the functions of the Countryside Council for Wales, and the Welsh devolved functions of the Environment Agency and Forestry Commission through the Natural Resources Body for Wales (Functions) Order 2013. The body became operational on 1 April 2013.

Current position

49. Article 4 of the Establishment Order sets down the general purpose of NRW which is to ensure that the environment and natural resources of Wales are sustainably maintained, enhanced and used for the benefit of the people, environment and economy of Wales today and in the future. The Welsh Ministers may issue guidance NRW on how it should exercise its functions to fulfil its purpose.

Purpose of legislation

50. The Bill substitutes a new article 4 of the Natural Resources Body for Wales (Establishment) Order 2012 to update its purpose in line with the framework being put in place by the Bill. This will require NRW, in the exercise of its functions, to pursue the sustainable management of natural resources. NRW will also be required to apply the principles of sustainable management of natural resources.
51. The purpose is therefore to provide NRW with:
- A clear purpose which embeds the principles of sustainable management of natural resources into the decision-making of the body.
 - An overarching objective for the delivery of its functions.

Intended effect

52. The provision updates the core purpose of NRW in line with the natural resource management provisions established by the Bill together with its wider obligations under the Well-being of Future Generations (Wales) Act 2015. In doing so it removes any conflicts in terms of the definition of ‘sustainability’ as provided in the original Article 4 of the Natural Resources Body for Wales (Establishment) Order 2012 and ensures consistency across the Establishment Order, the Environment (Wales) Bill and the Well-being of Future Generations (Wales) Act 2015.

53. The provision introduces a consistent approach for the delivery of NRW's functions based on the ecosystem approach, for example:

- It will consider the impacts of its decisions on the resilience of ecosystems and the ability of the ecosystems to deliver supporting, regulating, provisioning and cultural services and therefore the ability of our natural resources to meet the economic, social and environmental needs of current and future generations.
- It will consider the consequences of decisions or actions not only in the short-term but also in the medium and long-term and to introduce adaptive management processes to monitor, review and adjust its activities to meet the objectives of sustainable management of natural resources.

54. It will assist NRW to meet its requirements under the Sustainable Development principle in the Well-being of Future Generations (Wales) Act 2015 by promoting engagement with stakeholders and a variety of civil society organisations, including local communities.

Biodiversity and resilience of ecosystems duty

Background

55. Biodiversity is defined by the CBD as “*the variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems*”¹⁴. Diversity is a structural feature of ecosystems, and the variability among ecosystems is an element of biodiversity.
56. Maintaining and enhancing the diversity of biological organisms is a key component of both the integrated approach and of the sustainable management of natural resources. The variability of our biological resources is a vital element in ensuring that our ecosystems are functioning, healthy and that their integrity is enhanced and maintained at a rate that ensures that they are providing the life supporting systems necessary to ensure overall resilience.
57. Biodiversity drives the functioning of our ecosystems¹⁵ which in turn deliver a multitude of essential ecosystem services to society. Changes in the distribution and abundance of plants, animals, and microbes affect ecosystem functions and the capacity of those functions to deliver ecosystem services. Loss of species from ecosystems affect their ability to resist invasion by other species, affect production and nutrient cycling, and affect the reliability and stability of ecosystems. Therefore, biodiversity is essential to sustaining ecosystems that provide the vital services our lives depend on. Where biodiversity is lost and perhaps never fully recovered, it affects the capacity of ecosystems to adapt to changes and disturbances.
58. A key government commitment under the Programme for Government is to reverse the decline and secure the resilience of biodiversity by focussing on ecosystems as a whole and their connection with our economy and our communities.
59. The 2011 National Ecosystem Assessment reported a continuing decline in biodiversity and that around a third of the services provided by our natural environment are degraded or in decline¹⁶.
60. The State of Nature Report also reported that 60% of the assessed population of 3,148 species in the UK have declined over recent decades and that more than one in ten of all species assessed¹⁷ are under threat of disappearing.
61. The Assembly’s Sustainability Committee Inquiry into Biodiversity considered why the biodiversity targets had not been met and put forward recommendations

¹⁴ Article 2, Convention on Biological Diversity 1992

¹⁵ An ecosystem is made up of living organisms (plants, animals and micro-organisms) in conjunction with their non-living environment (air, water, minerals and soil) and all the diverse and complex interactions that take place between them. (Environment Bill White Paper)

¹⁶ UK National Ecosystem Assessment, (2011) <http://uknea.unep-wcmc.org/Resources/tabid/82/Default.aspx>

¹⁷ State of Nature Report, (2013), p6 <http://www.rspb.org.uk/ourwork/science/stateofnature/index.aspx>

to the Welsh Government on how better progress might be achieved in the future. In its findings, the Committee recommended that the Welsh Government should adopt an ecosystem approach to the management of biodiversity:

“The Welsh Government should adopt a strategic ecosystem approach to the management of biodiversity in the wider countryside through the Natural Environment Framework. This ecosystem approach should be central to the Government’s efforts to achieve the 2020 targets.”

62. The Committee also recommended that biodiversity should be a key tenet of the Welsh Government’s sustainable development policy and that a duty should be placed on relevant organisations to support and promote biodiversity, building on the existing biodiversity duty under section 40 of the Natural Environment and Rural Communities (NERC) Act 2006.

63. The Environment Bill White Paper set out the legislative proposals to deliver against the recommendations through natural resource management based on the ecosystem approach, to support delivery of the Welsh Government’s vision for the improved management of Wales’ natural resources. The White Paper also raised the need to streamline and clarify a number of existing regulatory regimes in response to which there were consistent requests to strengthen the existing biodiversity duty.

64. A number of respondents to the White Paper consultation commented that the success achieved through implementation of the section 40 of the NERC Act 2006 duty has been mixed or limited. Others observed that the Bill provided an opportunity to review the duty’s effectiveness and address shortcomings.

Current position

65. Section 40 of the NERC Act 2006 requires that all public authorities in England and Wales (over 900 in total, approximately 80 in Wales) have regard to the purpose of conserving biodiversity in carrying out their functions. Since its coming into force, some limited success has been achieved through the existing duty, for example the introduction of a number of local authority biodiversity champions and establishment of voluntarily reporting on the duty by local authorities and national park authorities.

Purpose of legislation

66. The intention is to provide statutory recognition for the variety of all living things, including the habitats that support them and genetic variation within species. This will help to ensure biological diversity is recognised as both an essential component of ecosystem resilience and a measure of success in delivering the sustainable management of natural resources.

67. A general biodiversity and resilience of ecosystem duty will apply to all public authorities who exercise functions in relation to Wales. That duty will be one which obliges all public authorities to seek to ‘maintain and enhance biodiversity’ in the course of exercising their functions (but without prejudice to the proper

exercise of those functions) and in so doing ‘promote the resilience of ecosystems’.

68. The aim of the ‘biodiversity duty’ is to:

- Align the biodiversity duty to the proposed framework for the sustainable management of natural resources.
- Ensure the acknowledgement of the critical role that biodiversity has in contributing to the health and functionality of ecosystems e.g. the enhancing of biodiversity as a means to encourage the restoration or rehabilitation of ecological systems and processes.
- Ensure that actions that could impact on biodiversity are not considered as an afterthought, but take into account the wider role that biodiversity has in contributing to the improvement of ecosystems and the resilience of biodiversity, ecosystems and the connecting network of ecosystems.
- Strengthen the biodiversity duty by placing a positive obligation on bodies to seek to maintain and enhance biodiversity.
- Introduce a new reporting requirement on how the duty is being met.

69. By highlighting the role that biodiversity plays in ecosystem resilience, the intent is to ensure that the maintenance and enhancement of biodiversity contributes to the long-term sustainability of the ecological and physical processes that underpin the way ecosystems work. This will enhance the capacity of our natural resources to provide ecosystem services such as clean water, climate regulation and crop pollination, as well as providing habitats for wildlife.

70. The Bill replaces the existing duty in section 40 of the Natural Environment and Rural Communities Act 2006 in relation to Wales, with a duty on public authorities to seek to maintain and enhance biodiversity. Public authorities will be required to exercise this duty in way that improves the key aspects that support biological diversity and the resilience of ecosystems. The new duty is therefore integrated within the framework established under the Bill for the sustainable management of natural resources.

71. This provision also aligns with the duties and well-being goals under the Well-being of Future Generations Act 2015. The Well-being of Future Generations (Wales) Act 2015 provides for a new well-being duty on public bodies, including NRW, to carry out sustainable development in all that they do. Sustainable development means:

“the process of improving the economic, social, environmental and cultural well-being of Wales by taking action, in accordance with the sustainable development principle, aimed at achieving the well-being goals.” (Section 2 of the Well-being of Future Generations (Wales) Act 2015).

72. The seven well-being goals are as follows:

- A prosperous Wales.
- A resilient Wales.
- A healthier Wales.
- A more equal Wales.
- A Wales of cohesive communities.

- A Wales of vibrant culture and thriving Welsh language.
- A globally responsible Wales.

73. The provision also acknowledges explicitly Wales' commitments to the UN CBD, signed in 1992 following the Rio Earth Summit.

Intended effect

74. The Bill will place biodiversity as a "natural and integral part of policy and decision making" within public bodies in Wales. The Bill will support the need to tackle the decline in biodiversity by seeking to maintain and improve the status of our biodiversity as well as ensuring that biodiversity is considered as a fundamental requirement of sustaining a functioning ecosystem by:

- Improving the variability of our biological resources, which can assist in increasing the diversity of our ecosystems and therefore their resilience.
- Enhancing variability in biological resources, thereby helping to strengthen the integrity of ecosystems and enable an ecosystem to adapt and/or respond to pressures, buffering the impacts of internal and external shocks to the system.
- Increasing the opportunity for connectivity between ecosystems, which is particularly important in terms of species dispersal as a result of climate change, which also contributes to long-term ecosystem resilience.

75. The introduction of a new reporting duty enables public authorities to report on actions taken to improve biodiversity and to promote the resilience of ecosystems and also what actions have been taken to incorporate biodiversity measures into other areas of policy, strategies or initiatives.

76. The intention is to achieve integration benefits for those bodies that fall under the Well-being of Future Generations (Wales) Act 2015 as they will be able to report on how they are delivering the biodiversity duty in their reports on how they are meeting their well-being objectives. For these bodies this will also ensure that the requirement is joined-up and embedded within the Well-being of Future Generations (Wales) Act 2015 obligations.

State of Natural Resources Report

Current position

77. Currently, there is no existing legal requirement for any organisation to report on the state of natural resources in Wales. There are some national reporting activities compiled by a range of organisations, including the Countryside Survey and the Wales Outdoor Recreation Survey.
78. NRW has specific duties to report on Wales' contribution (to the UK) under EU Directives. For example, the UK Climate Change Act 2008 requires national reporting of the current and predicted impact of climate change. The Welsh Government also undertakes habitat regulation reporting; Water Framework Directive reporting; and flood risk reporting.

Purpose of the legislation

79. The purpose is to create a statutory duty to provide an assessment of the state and trend of natural resources in Wales to identify whether progress is being made to meet the objectives of the sustainable management of natural resources. This will highlight whether ecosystems can continue to provide the necessary supporting, regulating, provisioning and cultural services that support the long-term well-being of the environment, society and economy in Wales.
80. The legislation requires NRW to prepare and publish a State of Natural Resources Report (SoNaRR) in accordance with the legislative timeframe provided in the Bill. SoNaRR will be an evidence base to provide information on the current state of our natural resources. In doing so it will make available the information needed for the Welsh Ministers to set priorities for action at the national level.
81. The existing (relatively narrow and reductionist) approach to environmental reporting does not reflect the interdependence between environmental factors or with economic and social aspects as reflected by the wider approach to natural resource management being put in place through the Bill. Reporting is to be orientated towards the ability of ecosystems to meet the needs of society, economy and the environment now and in the future. This might include analysis and reporting on issues such as status and trends in ecosystem functioning (including the state of the natural environment); outputs (ecosystem service provision and value); resilience (ability to withstand and restore functioning acknowledging the role of biodiversity) and resilience.

Intended effect

82. The legislation will result in:

- A comprehensive and centralised national evidence base on the status of natural resources in Wales, which is regularly reviewed and updated to reflect current conditions.
- A baseline which will inform the development of policy.
- The introduction of an iterative process with monitoring, review and responding to updated information. This will be accomplished through the connections between SoNaRR, NNRP and the area statements, by:
 - Ensuring that the identification of national priorities and opportunities set out in the national policy are informed by the evidence provided in SoNaRR
 - Ensuring that the delivery of the national policy at a local level through an area statement is informed by the appropriate evidence provided in SoNaRR.
 - Ensuring that the local evidence provided in the preparation of an area statement is captured by future reviews of SoNaRR.

National Natural Resources Policy

Current position

83. There is currently no legal requirement to produce an integrated national policy document for the sustainable management of natural resources and policies on environmental issues tend to be produced on an individual basis. In 2011 the Welsh Government committed to develop natural resource management planning, marine planning, and an integrated approach to ecosystem health through '*A Living Wales*'.

Purpose of the legislation

84. The Bill requires the Welsh Ministers to prepare, produce and review a national natural resources policy document in accordance with the legislative timeframe provided.

85. The Bill requires the first NNRP to be published within 10 months of section 9 coming into force. The Welsh Ministers can review the NNRP at any time but must review it following an election of the National Assembly of for Wales. Following a review, the Welsh Ministers may choose to continue with the NNRP or can revise it. If it is revised, the amended NNRP must be published.

86. The Welsh Ministers will be required to set out their policies for contributing to the sustainable management of natural resources in relation to Wales and to identify what they consider to be the key priorities, risks and opportunities for achieving this. They must also include within this policy what they consider should be done in relation to climate change and biodiversity.

87. The Welsh Ministers will also be required to take all reasonable steps to implement the policy and to promote the taking by others of such steps.

Intended effect

88. The intention is to:

- Ensure clear priorities and opportunities are set for achieving the sustainable management of natural resources at a national level based on a comprehensive evidence base provided in part by SoNaRR and the Future Trends Report in the Well-being of Future Generations (Wales) Act 2015.
- Promote integrated policy development, aligning the national policy within the context of the development of the Welsh Ministers' well-being objectives (in the Well-being of Future Generations (Wales) Act 2015) and the National Development Framework (as proposed in the Planning (Wales) Bill).
- Provide direction for the delivery of sustainable management of natural resources by the Welsh Ministers.
- Provide direction for the production of area statements by NRW, which will be the delivery mechanism for implementing priorities, and identifying risks and opportunities at a local level.

Area Statements

Current position

89. Two European Directives require an ecosystem-based approach, which is compatible with the approach being delivered in the Bill, these are:
- The Water Framework Directive (2003) requires an integrated approach through the development of River Basin Management Plans. More recently, many of the EU instruments relating to water are being integrated into the Water Framework Directive with the aim of taking a whole systems approach to management of the water environment.
 - The Marine Strategy Framework Directive (2006) requires an integrated approach to the management of human activities that impact the marine environment, while enabling the sustainable use of marine ecosystem services.
90. NRW are currently delivering three area trials in the Rhondda, Tawe and Dyfi river catchment areas. The purpose of the trials is to begin to embed the sustainable management of natural resources within the operation of NRW, in specific geographical areas - demonstrating how it can be applied in practice and importantly capturing the learning along the way.

Purpose of the legislation

91. NRW must prepare, produce and review area statements in order to implement one or more of the priorities, risks and opportunities outlined in the national natural resources policy at an appropriate spatial scale.
92. NRW may also use an area statement in order to deliver any of its functions and to rationalise any plans, programmes or strategies produced by NRW where this is consistent with any specific statutory duty. This will allow NRW to integrate, simplify and improve efficiency in delivering its role.
93. The need for area statements across Wales reflects the recognition, as provided for in the Well-being of Future Generations (Wales) Act 2015 that tackling overarching challenges and identifying sustainable solutions requires an approach that takes into account the local context. In addition, bodies must consider how acting in collaboration with other bodies can assist in the delivery of long-term objectives.
94. NRW can ask other public bodies (as defined in section 10 of the Bill) to provide information or assistance in the preparation and implementation of area statements (as provided in section 14). These bodies would be required to provide information or assistance.
95. NRW will be required to include specific information within each area statement they produce. This includes providing reasons for the preparation of an area statement for a particular area, which must include information on natural resources, and the benefits they provide as well as the priorities, risks and opportunities that need to be addressed in that area.

96. In addition, NRW will be required to state how they have applied the principles at section 4 of the Bill in the preparation of the statement.

97. NRW will be required to take all reasonable steps to implement an area statement and encourage other persons to contribute to its implementation.

98. Where required, the Welsh Ministers may direct a public body (as proposed in section 12) to take all reasonable steps to implement an area statement. This direction making power would ensure that other public bodies are also contributing to the implementation of an area statement, and was not the sole responsibility of NRW.

99. As part of the collaborative approach, public bodies that are also members of a public service board may seek to include priorities, risks or opportunities identified in an area statement as part of their local well-being plan.

Intended effect

100. The intention is that area statements will:

- Provide an evidence base at a local level to assist with other plans and which can also contribute to future publications of SoNaRR. In particular, a local well-being assessment undertaken by a public service board and subsequent local well-being plans (in the Well-being of Future Generations (Wales) Act 2015), management plans for Areas of Outstanding Natural Beauty (under section 89 of the Countryside and Rights of Way Act 2000) and management plans for National Park Authorities (under section 66 of the Environment Act 1995).
- Through informing the local well-being plans, contribute evidence to the development of any local development plan.
- Provide an evidence base on how NRW will deliver sustainable management of natural resources within that area.
- Reflect the appropriate level for decision-making, which recognises that ecosystems exist on many scales and are interconnected.
- Ensure that supporting, regulating, provisioning and cultural services are considered in decisions relating to priorities, risks and opportunities.
- Improve decision-making through a collaborative working approach between NRW and other public bodies in the development of an area statement and also in the delivery of the area statement.
- Enable NRW to integrate, rationalise and simplify any plans, programmes or strategies produced where this is consistent with any specific statutory duty.
- Provide a source of information and evidence for other public bodies on what actions may need to be taken. This could enable public bodies to incorporate such steps into, for example, the delivery of their own well-being objectives or the well-being plans of a Public Service Board (in the Well-being of Future Generations (Wales) Act 2015).
- Identify potential opportunities, risks and priorities at a local level and potential collaboration and engagement opportunities for different bodies

to work together and encourage active participation in the delivery of the sustainable management of natural resources at a local level and across different stakeholders.

- Area statements will provide evidence for public bodies, which can assist these bodies in making decisions that concern or might affect the natural resources in their area.
- Provide standard minimum content for each area statement to ensure consistency, including information on the natural resources in an area and the benefits they provide. This information can be used in future publications of the state of natural resources report. Allow a holistic approach to tackling key challenges, for example in reducing flood risk and tackling climate change.
- Ensure NRW can both take a whole system approach and also simplify and rationalise its processes to remove any duplication of activities.

Land Management Agreements

Background

101. A management agreement for the purpose of environment law is a financial mechanism (essentially a contract) for securing a particular course of action between two parties. They are most commonly currently used to protect and conserve the flora and fauna of an area and to manage land in a way that delivers nature conservation. They are usually made between a private land owner and one of the statutory conservation bodies (that is Natural England, NRW and Scottish Natural Heritage); the land owner may agree to manage the land in a particular way or not to do something on the land in return for payment. Historically, management agreements have been used to support sites such as Sites of Special Scientific Interest (SSSIs) (via the Wildlife and Countryside Act) and for SACs and SPAs (Natura 2000 sites) via the Habitat Regulations.

Current position

102. NRW already has a number of powers to enter into land management agreements for specified purposes with owners or occupiers of land. Management agreements may be made under section 39 of Wildlife and Countryside Act 1981, section 15 of the Countryside Act 1968 and section 16 of the National Parks and Access to the Countryside Act 1949.

103. Existing powers are limited in that they are exercisable in relation to land that has been designated for conservation or otherwise for the purpose of conserving natural beauty, amenity and promoting enjoyment by the public. Existing powers are not wide enough to enable NRW to further the sustainable management of natural resources in line with the full range of NRW's functions. For example, the ability to secure long-term and robust arrangements for managing flood risk.

Purpose of the legislation

104. The Bill enhances the existing power of NRW so that it may be used for the purpose of achieving any objective under any of its functions. This includes for the delivery of sustainable management of natural resources, which is a duty on NRW under Article 4 of the Natural Resources Body for Wales (Establishment) Order 2012 (as substituted by this Bill).

105. This will enable NRW to enter into a voluntary management agreement with any person, landowner or business, with a legal right over the land, to manage that land.

106. Land management agreements may impose positive obligations or restrictions on a land owner or occupier to manage the land in a way that will contribute to for example the sustainable management of natural resources.

Intended effect

107. The intention is to provide NRW with an ability to enter into voluntary land management agreements for achieving a wider set of objectives than under current legislation. This would, for example, enable NRW to enter into an agreement to manage land in a way that may contribute to flood alleviation.
108. For agreements to be binding on persons who acquire the land, NRW must register the agreement with the Land Registry. By registering the agreement future buyers or occupiers of the land will know what obligations will be required of them.
109. Management agreements are intended to be capable of being of a long-term duration so as to provide certainty. They are capable of being registered with the Land Registry so that the terms of the agreement will continue to apply to any person who acquires the land. For example in relation to flood defence the new form of management agreement can provide a sufficient level of certainty that the natural flood defence asset, in this case an area of land and its associated watercourses, will continue to be maintained to a specific standard even if the land is sold.

Experimental Schemes

Background

110. The introduction of an updated general purpose for NRW (section 5 of the Bill) may have implications on how NRW can carry out their functions in a way which allows them to comply with the obligations of their statutory functions and also enables them to achieve the sustainable management of natural resources in relation to Wales. NRW may need to trial new approaches to the delivery of their functions in a way that can deliver on this new purpose.
111. As pressures on natural resources are likely to continue, new and innovative approaches may also be required to enable NRW to achieve the sustainable management of natural resources. Importantly, pressures on the ability of the environment to sustain economic and social benefit will present challenges to NRW in discharging its functions. The ability for NRW to trial new approaches will be important to provide evidence for the delivery of wider social and economic outcomes. This is in line with principles of the ecosystem approach - that the range of services provided by ecosystems is the foundation for many economic and social benefits.
112. Significantly, priorities for NRW will continue to reflect the need to enhance the resilience of the natural environment to the causes and consequences of climate change. For example, increased incidence of flooding is likely to demand different working practises and techniques. Similarly, powers of innovation could assist NRW to test ways of mitigating against the causes of climate change, for example by piloting or supporting carbon capture projects, which in the future are likely to become increasingly important means of responding to carbon emissions.
113. Technological change is likely to continue to enable innovation. For example, emerging technologies and techniques could enable NRW to take action to address pollution.

Current Position

114. Section 4 of the Countryside Act 1968 provides NRW with a power to make and carry out, or promote the carrying out of, an experimental scheme designed to facilitate the enjoyment of the countryside, or to conserve or enhance its natural beauty or amenity.
115. These powers however relate to a limited range of NRW's functions and would not enable NRW to trial new approaches across the whole remit of their functions.
116. In relation to the delivery of these limited experimental powers, there is no general power available to the Welsh Ministers to suspend a provision in legislation in order to allow an experimental scheme to be undertaken.

Purpose of the legislation

117. The purpose is to provide NRW with the necessary powers to help them to achieve the sustainable management of natural resources. The Bill extends NRW's current powers to carry out experimental schemes.
118. This will be accomplished by amending the existing Article 10C of the Natural Resources Body for Wales (Establishment) Order 2012 to include a power to undertake experimental schemes as part of the general research power of NRW.
119. The research power will not change, but in relation to experimental schemes the purpose is to enhance and extend the existing experimental powers of NRW to provide for the new role of NRW as a body with much wider functions than of each of its legacy bodies.
120. The introduction of schemes can involve the development or application of new methods, concepts or techniques, or the application or further development of existing methods, concepts or techniques and could include the use of new management techniques. The definition of 'experimental schemes' clarifies that this includes the development or testing of proposals for regulatory change, which could lead to the development of standards or general binding rules.
121. To enable experimental schemes to be carried out, the Welsh Ministers may, on an application from NRW, suspend specific provisions in environmental legislation for a limited period, where the purpose of that suspension would enable an experimental scheme to contribute to the sustainable management of natural resources. This would be to remove any prohibitions in the legislation that may restrict the ability of NRW to trial new approaches to their functions in order to help achieve sustainable management of natural resources and also deliver the statutory objectives of their other functions. The suspension of a legislative provision is therefore linked to the functions of NRW.
122. For the power to be triggered, NRW must submit an application to the Welsh Ministers, which would:
- Identify the relevant provision.
 - Outline how that provision was preventing them from using their power to carry out experimental schemes.
 - Set out what the scheme would entail, who it would involve, how it would involve that person.
 - State the objective and expected duration of the scheme.
123. The Welsh Ministers must be satisfied that the suspension power would enable the scheme to be undertaken and be for the purpose of contributing to the sustainable management of natural resources.
124. The regulations may also include conditions which are to be tested under the scheme as well as providing the Welsh Ministers with the power to transfer existing enforcement measures from the existing suspended legislation. The Welsh Ministers must also be satisfied that the overall effect does not increase

the regulatory burden to ensure the process is not more onerous on those affected by the suspended provision.

125. Where an experimental scheme is being carried out, NRW will be required to evaluate the scheme and publish the impacts of it.

Intended effect

126. The intended effects of the provisions relating to experimental schemes are:

- Clarify the role between the existing power to conduct or commission research with the power to undertake experimental schemes by incorporating them into one power and applying across all of NRW's functions.
- Assist NRW to trial new approaches to enable them to deliver their functions in a way, which will also deliver on their new general purpose.
- Enable NRW to trial new approaches to assess the best methods for achieving the sustainable management of natural resources.
- Enable NRW to trial new approaches, which may provide best practice approaches and therefore help to identify opportunities for the development of general binding rules.
- Enable NRW to trial new approaches, which may include multiple stakeholders and therefore encourage wider involvement in the delivery of sustainable management of natural resources.
- Provide learning on new methods or approaches before general implementation.
- Provide learning to develop a case for change.
- Provide learning on any conflicts in existing legislation with the delivery of sustainable management of natural resources or the application of the ecosystem approach more generally. Therefore, provide information to the Welsh Ministers on any issues in delivering on natural resource management policy.
- Schemes may be identified in area statements as opportunities for the delivery of sustainable management in that area and therefore provide information for other bodies as an opportunity for collaboration and a means of helping to implement an area statement.
- Time limited derogation from specific legislative obligations for parties involved in an experimental scheme to identify new approaches to meet their legislative requirements, whilst simultaneously contributing to the delivery of sustainable management of natural resources. This approach may also assist in trialling new general standards that could be developed into general binding rules for general application.

Links to Well-being of Future Generations (Wales) Act and Planning (Wales) Act

127. There are clear links between the Environment (Wales) Bill and the Well-being of Future Generations (Wales) Act 2015 and the Planning (Wales) Act 2015. The principle that connects these three pieces of legislation is the commitment to sustainable development to improve the well-being of Wales now and for future generations.
128. The Well-being of Future Generations (Wales) Act 2015 puts in place a stronger, more coherent sustainable development framework for Wales through a set of seven well-being goals, a sustainable development principle, and a strong duty for all public bodies to carry out sustainable development, reflecting the need to improve the economic, social, environmental and cultural well-being of Wales. To help them do this, the Act sets up a Future Generations Commissioner for Wales who will help public bodies make more sustainable choices as well as safeguarding the interests of future generations. The Environment (Wales) Bill has been designed to complement the Well-being of Future Generations (Wales) Act 2015 by applying the principles of sustainable development to the management of Wales' natural resources.
129. The Planning (Wales) Act 2015 will create an efficient process to ensure the right development is located in the right place. The Environment (Wales) Bill complements the aims of Planning (Wales) Act 2015 in supporting sustainable development, by ensuring that evidence in relation to key risks and opportunities associated with the management of Wales' natural resource informs the Planning process through the local well-being assessments.
130. Some of the key legislative links to the Well-being of Future Generations (Wales) Act 2015 are described below.

Well-being goals

131. The Bill makes clear that the objective of the sustainable management of natural resources, under section 3, will contribute to the achievement of all seven well-being goals in section 4 of the Well-being of Future Generations (Wales) Act 2015.

Evidence for local well-being assessment

132. Public Services Boards (PSBs), established under the Well-being of Future Generations (Wales) Act 2015, will be required under the Environment (Wales) Bill to take account of area statements (within their area) when preparing local well-being assessments. Area statements will take into account the SoNaRR but PSBs can also consider the evidence within SoNaRR.

Participation on PSBs

133. NRW will be a statutory member of a PSB. Under the Environment (Wales) Bill, NRW will have an updated statutory purpose (sustainable management of natural

resources) that applies to all of its functions. As members of the PSB, NRW will deliver their functions on PSBs in a way that will seek to achieve sustainable management of natural resources. In so doing, this will help the PSBs deliver its well-being duty.

Timings of Documents

134. The setting of well-being objectives by the Welsh Ministers under the Well-being of Future Generations (Wales) Act 2015 will correspond with the timing for the production of the NNRP. Therefore the well-being objectives can be taken into account by the Welsh Ministers in preparing the NNRP.
135. The Future Trends report published under the Well-being of Future Generations (Wales) Act 2015 can be informed by the SoNaRR. The Future Trends report can in turn help to inform the preparation of the NNRP.
136. Public bodies under the Well-being of Future Generations (Wales) Act 2015 will be required to report annually on the progress they have made on meeting their well-being objectives, to assist them in this exercise they could call upon area statements in relation to reporting on progress.
137. The Well-being of Future Generations (Wales) Act 2015 allows for the revision of well-being objectives, if the Welsh Ministers revise their objectives. NRW may voluntarily choose to review area statements in line with the revised well-being objectives.
138. Under the Well-being of Future Generations (Wales) Act 2015, the Future Generations Commissioner will publish a report on the assessment of the improvements that public bodies should make in order to set and meet well-being objectives. NRW could call upon this report in the preparation of area statements.
139. The key links between the Bill and the Planning (Wales) Act 2015 are described below.

Local Development Plans and National Development Framework

140. The connection between the Environment (Wales) Bill and the Planning (Wales) Act 2015 has been made through linking the Planning and Compulsory Purchase Act 2004 to the area statements and the NNRP. This will enable area statements to form part of the evidence base for Local Development Plans and will also ensure that the National Development Framework takes account of the NNRP.

Climate Change (Part 2)

Background

141. The Fifth Assessment Report (AR5) of the Intergovernmental Panel on Climate Change (IPCC) highlights the overwhelming scientific consensus for human induced climate change and the significant impacts it is likely to bring¹⁸. Without additional mitigation, the IPCC sets out that global warming by the end of the 21st century is expected to exceed 4°C, leading to a high risk of severe, widespread, and irreversible impacts. This will both increase existing risks and create new risks for natural and human systems, which are unevenly distributed and are generally greater for disadvantaged people and communities. Key messages from the most recent IPCC reports highlight that the longer we wait to take action, the more it will cost and delay will cause a consequential need to cut emissions more sharply in order to avoid dangerous levels of climate change.
142. There is growing momentum and international commitment towards decarbonisation in order to meet climate change targets and sustainable development goals. There is also a growing body of evidence – including that set out in the most recent UK Climate Change Committee report – indicating that those nations that move more quickly to meet this agenda may benefit from a competitive advantage and unlock the opportunities associated with green growth.
143. At the global level, a new agreement was reached at the United Nations Framework Convention on Climate Change (UNFCCC) Conference of the Parties (COP), held in Paris in December 2015. The new agreement, which opens for signatures in April 2016, confirms the target of keeping the rise in temperature below 2°C with an aspiration for aiming for 1.5°C.

Current position

144. The UNFCCC has as its ultimate objective the “*stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system*”. The current international agreement to reduce greenhouse gas emissions is the 1997 Kyoto Protocol, which has put in place a binding obligation for industrialised countries to reduce greenhouse gas emissions through the setting of targets. The EU, as a signatory to the Kyoto Protocol, committed in 2007 to reducing overall greenhouse gas emissions by 20 per cent below 1990 levels by 2020 and by 80% by 2050 and has now put in place a clear roadmap for decarbonisation, with key interim targets put in place for 2020 as part of its headline 2020 policy and more recently as part of the 2030 framework, to guide planning towards the 80% target.
145. The EU has established legislative mechanisms to support delivery of these policy targets which are spread across the EU Emission Trading Directive, the Effort Sharing Decision (for sectors not covered by EU ETS), Renewable Energy Directive, and Carbon Capture and Storage Directive.

¹⁸ IPCC Synthesis Report 2014

146. Within the UK, the key legislative commitments are set out within the Climate Change Act 2008 (2008 Act). This contains a headline target of reducing the UK's emissions of the basket of six greenhouse gases (to which a seventh will soon be added¹⁹) by at least 80% by 2050. It also provides a framework for setting a limit on the total amount that can be emitted by the UK over successive five-year periods (carbon budgeting). The Act also established an independent Committee on Climate Change(UKCCC) to advise UK Government on the setting of carbon budgets and to provide further advice to the UK Government and Devolved Administrations (where requested) on climate change matters. The 2008 Act introduced relevant governance requirements including reporting, enabling powers to create emission trading schemes and provisions on adaptation to climate change impacts.

147. As one of the Devolved Administrations contributing to the UK emissions reduction target, Wales contributes to the funding of the UKCCC (based on the Barnett formula). The UKCCC has provided advice to Wales to help identify cost-effective measures for emission reduction and for effective adaptation work. This advice has included analysis of legislative options for emission reduction targets and carbon budgeting.

148. Scotland has put climate change targets on a legislative footing through the Climate Change (Scotland) Act 2009. Northern Ireland has undertaken pre-consultation on the potential introduction of legislative targets²⁰.

149. Currently in Wales, climate change targets are part of a long term policy commitment first set out in the 2010 Climate Change Strategy. The intention to introduce statutory targets – in addition to the existing 2050 target in the 2008 UK Act - builds on the Welsh Government's commitment to tackle the causes and consequences of climate change set out in the Strategy.

150. The Strategy put in place a number of targets:

- (i) a 3% annual reduction in greenhouse emissions in devolved areas, against a baseline of average emissions between 2006 and 2010;
- (ii) a 40% reduction in overall emissions from Wales by 2020 against 1990 levels; and
- (iii) current sector target ranges for 2020 to which emissions should be reduced:
 - Transport: 4.59-4.93 Mt CO₂e (millions of metric tonnes of carbon dioxide equivalent).
 - Residential: 5.62-5.93 Mt CO₂e.
 - Business (within areas of devolved competence): 8.23-10.15 Mt CO₂e.
 - Agriculture and land use: 4.38-5.40 Mt CO₂e.
 - Public sector: 0.62-0.84 Mt CO₂e.
 - Waste sector: 0.77-1.04 Mt CO₂e.

151. Under the 2008 UK Act, there are already existing duties on Welsh Ministers to report in relation to actions to reduce emissions and report on progress. Although

¹⁹Nitrogen Trifluoride

²⁰ March-May 2013

there has been some progress against these emissions targets, the last Annual Report on Climate Change (2014) reinforced the message from the previous year's report (2013) that further action will be needed if the 2020 targets are to be met.

2050 target, Interim targets and carbon budgets

Purpose of the legislation

152. The provisions in this Bill require the Welsh Ministers to meet long-term statutory targets to reduce emissions of greenhouse gases from Wales. The Bill places a duty upon the Welsh Ministers to ensure that net Welsh emissions for the year 2050 ("the 2050 target") are at least 80% lower than greenhouse gas emissions for their respective baseline years (either 1990 or 1995 as provided in section 38 of the Bill). If one of the conditions provided in section 32(2) is met (for example a recommendation for the advisory body), the Welsh Ministers may by regulations increase the 2050 target to a percentage greater than 80.
153. The Bill also specifies two interim target years for 2030 and 2040 and requires the Welsh Ministers before the end of 2018 to set interim emissions targets for those years.
154. The Bill also places a duty upon the Welsh Ministers to set in regulations a series of 5 yearly carbon budgets to commence in 2016. Interim targets and carbon budget must be consistent with the 2050 emissions target.
155. The Bill gives the Welsh Ministers' the power to amend, by regulation the interim targets and carbon budgets set under the Bill. The Welsh Ministers must however be satisfied that any changes to the targets or budgets is based on scientific knowledge about climate change, or EU or international law or policy on climate change, or advice received from the advisory body.
156. The Bill also lists the "greenhouse gases" to be included in Welsh emissions calculations. It provides that the Welsh Ministers may make further provision, by regulations, for how Welsh emissions are calculated and recorded and requires that the methodology adopted is in accordance with international carbon reporting practice. It also ensures that regulations must contain provisions which ensure that any carbon unit credited to the net Welsh emissions account thereafter ceases to be available to be further used to offset any other greenhouse gas emissions. If a carbon unit was used for a second time this could result in double accounting. The regulations must set a limit on the net amount of carbon units that may be used to reduce the net Welsh emissions account. This will require the Welsh Ministers to consider the appropriate split between domestic and overseas action to deliver the Welsh targets.
157. The Bill gives the Welsh Ministers the power to amend, by regulation the list of greenhouse gases and the baseline years of those gases.

Intended effect

158. The intended effects of the provisions are:

- To provide a legislative requirement for a clear pathway for decarbonisation, providing greater certainty for investment decisions.
- To set out how Wales' emissions will be calculated and what will and will not be included in the Welsh emissions account to provide transparency.
- To ensure each budget is progressively reduced in order to achieve the required long-term reduction in emissions, with budgets calculated to reduce emissions at a rate to meet the 2050 target.
- To allow flexibility, where a need for a slower transition in one area can be balanced with more rapid progress in another. To enable a robust methodology to take into account advances in science such as amending or modifying what greenhouse gases are calculated in our emissions.
- To provide the Welsh Government with a reporting framework which is consistent with international carbon reporting practice.

The Role of the Advisory Body

Purpose of the legislation

159. The emissions reduction provisions in the Bill impose duties on the Welsh Ministers, which require them to establish carbon budgets and interim emissions reduction targets through secondary legislation. The Welsh Ministers will be required to seek expert, independent advice in advance of setting or modifying budgets, interim targets, adding greenhouse gases, or making a number of other provisions. The Bill ensures that Welsh Ministers seek advice from an expert advisory body. Under the Bill, the Welsh Ministers may create a new body to act as the advisory body or designate by regulation a person as the advisory body. Where no person is designated or no body created; the UKCCC is identified as the advisory body.

160. Where a new body is created by regulations, these may include specific requirements in relation to establishing the advisory body, such as specifying governance arrangements of the body, including making any necessary changes to ensure there are no conflicting provisions in other legislation.

161. When providing advice to the Welsh Ministers on changing the 2050 target, setting or changing the interim emission targets or budgets, the advisory body will be required to have regard to the criteria in section 32(3) of the Bill.

162. The Bill also provides provision requiring the advisory body to report on whether a carbon budget for a given period has been met, on whether an interim target and the 2050 target are the highest achievable target and if not what is the highest achievable target. The advisory body will also be required to provide its reasons on why targets or budgets were met or not met and any further measures that may need to be taken for the targets to be met.

163. In relation to the 2030 interim emissions target, the advisory body will report upon progress towards 2040 and 2050 targets, in particular whether they are the

highest achievable targets. In relation to the 2040 interim emissions target they will report upon progress towards the 2050 target and whether it is the highest achievable target.

Intended effect

164. The intended effects of the provisions relating to the advisory body are that they:
- Provide expert, independent advice in advance of setting or modifying budgets, interim targets and adding greenhouse gases. This will help to ensure that our targets and budgets are robust, credible and realistic.
 - Provide advice on the progress towards achievement of the budgets that have been set and progress towards the interim targets and the 2050 target, to help assess where further action is needed.
 - Provide advice on wider climate change issues.
 - Provide the ability for the Welsh Ministers to create a new body to act as an advisory body or designate an alternative advisory body.

Reporting on Climate change

Purpose of the legislation

165. The Bill provides for a number of measures to ensure that regular updated information is made available to the National Assembly for Wales on progress in relation to meeting the targets and how the targets and budgets can be met.
166. The Bill will require the Welsh Ministers to lay before the National Assembly:
- A final statement for each five year budgetary period within two years of the last year of the budget period. This will provide information on Welsh emissions, whether any amounts have been carried forward or back from one budgetary period to another and on the final amount of the net Welsh emissions account. Where the net Welsh emissions account exceeds the carbon budget for that period, the Welsh Ministers must report to the National Assembly on proposals and policies to compensate for dealing with this excess in later budgetary periods.
 - A statement for each interim target year and for the 2050 target. This must be done within two years of the target date, providing information on the total amount of Welsh emissions, Welsh removals, net Welsh emissions account and the total amount of carbon units credited or debited to the account. The Welsh Ministers must also state why the target has or has not been met.
167. The Welsh Ministers must also publish a report setting out their proposals and policies for meeting the each carbon budget.
168. The Welsh Ministers are also required to inform the National Assembly where they may have deviated from advice from the advisory body on the appropriate level for a target or budget to be set or amended in legislation. Where the Welsh Ministers set a different level to the one advised, they must lay a statement before the National Assembly providing their reasons why. Where the advisory

body has issued a progress report on whether the targets are being met, the Welsh Ministers must lay this report before the National Assembly.

Intended effect

169. The intended effects of the provisions relating to the reporting requirements are:

- To set out the key reporting requirements for progress being made in Wales, to ensure we are kept on track to achieve our targets.
- To evaluate long term action at the interim target stage to ensure that delivery is on track.
- To ensure further actions are identified and taken should emissions targets not be met.
- To provide transparency and accountability on the policies and proposals designed to help to deliver emissions savings towards budgets and targets.
- To link budgetary periods with the Welsh Government's reporting cycles to ensure that each successive Government sets out their policies and proposals for dealing with climate change and reports on action.

Charges for Carrier Bags - minimum charges to be set for other types of carrier bags (Part 3)

Background

170. The Single Use Carrier Bags Charge (Wales) Regulations 2010 were made under sections 77 and 90 and Schedule 6 of the Climate Change Act 2008. The Regulations introduced a 5 pence minimum charge on all new Single Use Carrier Bags (SUCBs) at the point of sale from 1 October 2011.
171. The aims of the charge were to reduce demand for SUCBs and to encourage shoppers to reuse their own bags in order to reduce the cost on the environment through their production and their improper disposal. Prior to the implementation of the SUCBs charge it was estimated that around 445 million SUCBs were being consumed annually in Wales.
172. The policy of reducing the demand for SUCBs in Wales has been very successful and initial figures provided by retailers in 2012²¹ showed reductions of over 90% in the supply of single use bags in some retail sectors. This was further supported by data by the Waste Resources and Action Programme (WRAP)²² for 2013, which showed that the supply of plastic single use carrier bags in major supermarkets in Wales has decreased by 79% since 2010. However, an unintended consequence of the reduction in the use of single use carrier bags is that the demand for other types of reusable carrier bags has increased, as consumers 'substitute' away from SUCBs.
173. Reusable carrier bags are currently outside the scope of the Single Use Carrier Bags Charge (Wales) Regulations 2010, and there is nothing in the enabling powers of Schedule 6 to the Climate Change Act 2008 to enable the Welsh Ministers to amend the Regulations if the sale of reusable bags continues to increase. The Climate Change Act 2008 only allows Regulations to be made in relation to SUCBs.

Current Position

174. Data from the Waste Resources Action Programme²³ has shown an increase (around 120-130%) in the sale of all bags for life (BFL) by supermarkets in Wales between 2010 and 2012. This figure has risen by a further 15% between 2012 and 2013.
175. Independent research commissioned by the Welsh Government with Zero Waste²⁴ Scotland has also shown that although a significant proportion of Welsh

²¹ *Welsh Government (2012):*
http://wales.gov.uk/topics/environmentcountryside/epq/waste_recycling/substance/carrierbags/reduction/?lang=en

²² *WRAP Data (2014):* <http://www.wrap.org.uk/content/wrap-publishes-new-carrier-bag-use-figures-0>

²³ <http://www.wrap.org.uk/>

²⁴ *Behaviour study on the use and re-use of carrier bags (2012):*
http://wales.gov.uk/topics/environmentcountryside/epq/waste_recycling/substance/carrierbags/behaviour-study-on-use-of-carrier-bags-2012/?lang=en

shoppers (60%) have been observed to be reusing bags, some retailers have been seen to be promoting the sale of reusable plastic bags that retail between 5 pence and 10 pence and which are normally referred to as *'bags for life'*.

176. An increase in demand for reusable bags was expected in Wales following the introduction of the charge as consumers got used to reusing their bags and purchased enough reusable bags for their shopping needs. However, there are concerns that consumers may treat another type of carrier bag (the low cost reusable plastic BFL) as a 'throw-away bag' and discard it prematurely. This "substitution effect" is likely to have significant adverse environmental impacts if these types of bags are disposed of inappropriately; as such bags are typically made of heavier gauge materials and take longer to degrade.
177. An independent review of the single use carrier bags charging scheme in Wales has been commissioned by the Welsh Government and is due to report in early summer 2015. This review will provide further evidence on consumer behaviour in terms of demand and disposal of re-useable carrier bags.

Purpose of the legislation

178. The purpose of these provisions is to provide enabling powers for the Welsh Ministers to make Regulations to place minimum charges on different types of carrier bags, in addition to the charge already placed on SUCB.
179. It is not the policy intention to apply the carrier bag charge more widely immediately, as the Welsh Government does not wish to unnecessarily legislate. Instead the Welsh Government has taken this opportunity to expand the existing regulation making powers in the Climate Change Act 2008 to ensure that the current charging regime can be adapted in a flexible and targeted way through the use of Regulations if future evidence identifies that this course of action is necessary. Evidence to date indicates that the demand for other types of carrier bags is increasing; however this increase is still within the expected limit. Future-proofing the current regime in this manner would allow the Welsh Ministers to make an informed decision, after further evidence has been gathered, as to whether the demand for other types of carrier bags has increased to an unacceptable level.

Intended Effect

180. The legislation:
- Provides greater flexibility for the Welsh Ministers to adapt to any emerging consumer trends or unintended consequences of the SUCB charging regime.
 - Allows for responsive and integrated development of future legislative interventions as evidence of need emerges.
181. Placing a minimum charge on other types of bags would also correct any 'market failures' that occur as a result of the negative externalities associated with the

production and disposal of these bags. Negative externalities, for example, emissions and litter associated with carrier bag production and disposal, occur when consumption or production of a good or service has an additional cost on society that isn't captured within the price paid by the private individual.

182. As the price consumers pay for re-usable bags does not necessarily cover the full social costs of the bag, consumption of these bags could be above the socially optimum level, particularly as consumers 'substitute' from SUCB to other bag types in light of the five pence charge. Introducing a minimum charge would close a loophole whereby currently retailers can legally give away carrier bags free of charge provided they are not SUCB. It could also reduce demand for other bag types where consumption levels are deemed to be above socially optimal levels.

Charges for Carrier bags – Application of net proceeds to extend to any good cause

Background

183. Schedule 6 to the Climate Change Act 2008, as amended by the Waste (Wales) Measure 2010, provides that the Welsh Ministers may, by regulations, require sellers to apply the net proceeds of the carrier bag charge to purposes that will benefit the environment.

184. This power has not currently been exercised as the preferred policy has been to enlist the co-operation of the sellers by encouraging them to apply the net proceeds to good causes through a voluntary agreement. Sellers have been invited to sign up to guiding principles in the Welsh Government's voluntary agreement but are still legally free to apply the proceeds as they see fit.

Current position

185. The Welsh Government is currently monitoring sign up to the voluntary code through the online form that is available from the Carrier Bags website²⁵ for retailers to use. Since the introduction of the charge 256 retailers have completed this online form and it is recognised that this information is limited and only provides a partial picture as it is reliant on retailers completing the form. In addition to the information provided by those that have formally signed up to the voluntary code, evidence has been gathered of a number of retailers that have passed on their net proceeds of the charge to good causes but who have not signed up to the voluntary code.

186. The aim of the voluntary code was to encourage a consistent approach for all sellers across Wales and to ensure that individual sellers did not benefit personally from the charge itself.

²⁵ <http://www.carrierbagchargewales.gov.uk/retailers/bagsnotincluded/?lang=en>

187. Although it is clear that many sellers are donating the net proceeds of the charge to good causes, the Welsh Government is concerned that there is a risk some sellers may be profiting from the proceeds of the SUCBs charge.

188. In addition, under the existing law the Welsh Ministers could only require sellers to apply the proceeds to environmental good causes. As a result, sellers who are currently donating their proceeds to non-environmental good causes, such as local causes and health related charities would have to change their existing arrangements and this action would cut across existing relationships between sellers and good causes.

Purpose of legislation

189. The Bill imposes, by regulations, a duty on sellers to apply the net proceeds of the carrier bag charge to good causes as specified in Regulations. This will ensure that all of the net proceeds generated from carrier bags that may be subject to the charge, will be donated to good causes. As a result sellers will no longer have the option of retaining the proceeds by opting out of the current voluntary agreement.

190. The Bill also has the effect of removing the limitation in paragraph 4A of Schedule 6 to the Climate Change Act 2008 so that sellers may apply the net proceeds to any charitable purpose as may be specified in regulations and will not be limited to applying them to environmental good causes only. The purpose of this amendment is to ensure that when the duty to apply the net proceeds of the charge to good causes is imposed on sellers, it will not disrupt the existing arrangements of those sellers who are currently donating the net proceeds of the charge to good causes. Sellers who are not currently donating their net proceeds will be required to do so but those who are will be able to continue to do so without cutting across any existing relationships they have with the non-environmental good causes.

Intended effect

191. The legislation will result in the provision of a proportionate legislative intervention that:

- Will ensure that the net proceeds of the charge for carrier bags are applied to good causes and not retained by sellers.
- Will enable the Welsh Ministers, by regulations, to make provision about how the net proceeds of the charge may be applied so as not to cut across the existing relationships that sellers have with their chosen good causes.
- Will only affect those sellers who are not currently passing the net proceeds of the charge on to good causes.

192. The intended effect would be to impose a duty on sellers of carrier bags to apply their net proceeds to good causes as specified in Regulations on commencement. The powers contained in Part 3 of the Bill, would also allow sellers to apply these proceeds to both environmental and non-environmental good causes, so as not to cut across the existing relations that they have with their chosen good causes.

Collection and Disposal of Waste (Part 4)

Background

193. Increased recycling and recovery of waste is a key aim of both European policy and legislation and the Welsh Government's policy, including:

- Towards Zero Waste (the waste strategy for Wales).
- Programme for Government.
- The Environment and Climate Change Strategies for Wales.
- The principles of the European Framework Directive and European Union 7th Environment Action Programme.

194. Increased recycling and recovery of waste will support the overarching aims of the Bill (set out in this Explanatory Memorandum) by supporting the effective management of resources which will help to decrease pressure on natural resources whilst also contributing towards positive results for the economy, jobs and the environment in Wales by:

- Saving costs to businesses through avoided landfill tax.
- Increasing business competitiveness by reducing material costs.
- Increasing employment by creating jobs in collection and reprocessing.
- Supporting increased opportunities for the generation of renewable energy from business waste.
- Giving greater security of supply of resources to our manufacturing sector.
- Helping drive green growth and develop a circular economy for Wales through the use by Welsh manufacturing businesses of recyclate collected in Wales.
- Reducing greenhouse gas emissions.
- Reducing the ecological footprint of Wales.

195. Wales produces the following levels of waste:

Waste Stream	Amount (million tonnes)
Household ²⁶	1.4
Industrial and Commercial ²⁷	3.7
Construction and Demolition ²⁸	3.4

196. The Wales Waste Strategy, Towards Zero Waste sets targets for the recycling of waste:

- 70% target for recycling by 2025 for waste from households and commercial and industrial businesses.
- 90% by 2019/20 for waste from construction and demolition activities.

197. Progress has been made with recycling, particularly from households. However, despite this progress, recyclable materials continue to be landfilled. Significant amounts of recyclable materials are still mixed with non-recyclable waste, which reduces their value and prevents their use as a high quality source of input

²⁶ <http://wales.gov.uk/statistics-and-research/local-authority-municipal-waste-management/?lang=en#/statistics-and-research/local-authority-municipal-waste-management/?tab=previous&lang=en> 2013/14 figures

²⁷ Survey of Industrial and Commercial Waste Generated in Wales 2012 – Natural Resources Wales (2014)

²⁸ Survey of Construction and Demolition Waste Generated in Wales 2012 (2014)

material to industry. In order to maintain a high resource value, it is vital that recyclable materials are kept separate from other wastes at source. It supports market demand for high quality and high value recyclate and is the best way to achieve high recycling rates and deliver wider economic benefits.

Current position

198. The Welsh Government is working towards a high degree of segregation of recyclable materials, with recyclable materials separated either by the producer of the waste or sorted by the operators of the collection vehicle into separate compartments of the vehicle at the kerbside. Currently, many recyclable materials are landfilled or mixed with other wastes prior to separation at intermediate facilities, leading to cross contamination and the production of a lower quality recyclate.

Separate Collection

199. The Waste (England and Wales) Regulations 2011 require 4 materials (paper, glass, plastic and metal) to be separately collected where technically, economically and environmentally practicable and of necessity in order to comply with the relevant requirements of the Waste Framework Directive. There is no requirement placed on establishments and undertakings collecting waste to collect materials other than these by means of separate collection.

Separation of waste by the waste producer

200. Under the current arrangements, there is no direct requirement on business waste producers to segregate their waste materials for collection. Household waste producers can be required by certain local authorities (under section 46 of the Environmental Protection Act 1990) to separate waste into the containers provided by the Authority.

Energy from Waste (EfW) and Landfill Bans for key materials

201. Currently, both Energy from Waste (EfW) and landfill facilities can accept recyclable wastes. For recyclable materials, these are less sustainable options than recycling.

Disposal of food waste to sewer

202. Currently, subject to restrictions in the Water Industry Act 1991, food waste can be disposed of to sewer, normally via intermediate technology such as a food waste disposal unit. This is a less sustainable option than other technologies, for example anaerobic digestion, that produce energy and high quality fertiliser from food waste.

Purpose of Legislation

203. The Bill introduces new arrangements in relation to waste segregation and collection for both its production and the collection services. The overall policy

intention is to deliver a step change in the recycling and recovery of waste in Wales by aiming to:

- Maximise the quantity of materials available for recycling, including food waste.
- Improve the quality of materials available for recycling.
- Make sure that materials which could have been recycled are not wasted.
- Protect the environment by ensuring that only residual waste streams are finally disposed of in landfill or incinerated.
- Provide greater certainty for investment in recycling, waste collection and treatment infrastructure.
- In addition, reduce the likelihood of blockages or obstruction to sewers, caused by food waste.

204. The provisions of the Bill act at different points in the waste management chain – at the producer of the waste, at the waste collection company and at the different points of treatment and final disposal or recovery (such as the energy from waste facility). It is intended that the proposals will work in conjunction with each other, in order to provide an integrated and proportionate approach to segregation of recoverable waste materials, and diversion of those materials from disposal, towards high quality recycling or recovery, thereby increasing the efficiency of use of resources derived from waste.

205. The provisions also operate in conjunction with landfill bans to be brought under the existing provisions of the Waste (Wales) Measure 2010. Landfill bans will ensure that valuable recyclable materials are not lost to landfill while protecting the environment from the climate change impacts of landfilling biodegradable material. In addition, landfill bans will support the duties to segregate and separately collect materials.

206. The aims of the provisions of the Bill in relation to this policy strand are set out below:

- **Segregation by waste producers** ensures that clean, uncontaminated recyclable materials are separated before moving onto the next stage in the process. This will command higher prices in the recycling markets and businesses that separate their wastes may find that they can reduce their costs of waste collection and disposal. The Welsh Government has previously consulted on the segregation for collection by non-domestic waste producers of 7 materials - paper, card, plastic, metal, glass, food and wood (further detail is set out in Chapter 4). It may be necessary to add to or remove specified materials from the requirement, if future evidence identifies it is necessary.
- **Separate collection** ensures that a full separate collection service for segregated recyclable materials is available to those that produce waste. The Welsh Government has previously consulted on extending the existing duty on waste collectors in the Waste (England and Wales) Regulations 2011 to include the collection of additional materials (card, wood and food) by way of separate collection (further detail is set out in Chapter 4). The Bill allows the current requirement in the Waste (England

and Wales) Regulations, to be enhanced with a requirement for separate collection of an increased range of materials. It may be necessary to add to or remove specified materials from the requirement if future evidence identifies it is necessary

- **Energy from Waste bans** will ensure that valuable recyclable materials/resources are not burnt. This will support the upstream duties to segregate and separately collect materials – residual waste containing specified materials will not be accepted at EfW facilities. The Welsh Government has previously consulted on banning seven materials from EfW facilities - paper, card, plastic, metal, glass, food and wood. It may be necessary to add to or remove specified materials from the requirement, if future evidence identifies it is necessary.
- **A ban on the disposal of food waste to sewer** from non-domestic premises will ensure that increased amounts of food waste are available for beneficial treatment and use rather than disposal. The waste will be retained for treatment via anaerobic digestion which is a vital source of renewable energy and high quality fertiliser. Other benefits are likely to include the reduction of the risk of blockages, sewer flooding, environmental pollution, odours and rodent infestations, amongst other benefits.

Intended Effect

207. The legislation will result in:

- An increase in the quantity and quality of materials available for recycling in Wales.
- Increased environmental protection as only residual waste streams are finally disposed of in landfill or incinerated.
- Greater certainty for investment in recycling, waste collection and treatment infrastructure.
- Consequential benefits to the economy, jobs and the environment.

Fisheries for Shellfish (Part 5)

Background

208. Shellfisheries can be a valuable method of managing marine resources in a way which supports the sustainable management of natural resources.
209. There is specific legislation to encourage the setting up and management of private and natural shellfisheries. Under that legislation (the Sea Fisheries (Shellfish) Act 1967), orders known as Several Orders and Regulating Orders allow the Welsh Ministers to grant exclusive fishing or management rights within a designated area in Wales.
210. A Several Order allows the person to whom that fishery is granted (known as “the Grantee”) to establish and/or enhance and cultivate existing and introduced ecosystems for their own economic benefit, often creating employment opportunities in remote rural locations as part of that process. A Regulating Order enables the Grantee to regulate existing and introduced ecosystems, often by operating a system of issuing permits to others, which enable those others to fish for the specified shellfish. Regulating Orders are often therefore used as a tool for fisheries management.
211. When a new order is granted, it can have important implications for other parties and the environment, so the application process is very thorough. A formal procedure must be followed to make sure all views are considered.

Current Position

212. Currently in Wales, there are relatively few active Several or Regulating Orders, or applications for new ones. The full potential of such Orders is not currently being realised due to the issues inherent in the existing legislation and its operation in a way which complies with other legislative regimes (such as that relating to the environment). This has led to a loss in both opportunities for local employment as well as environmental improvements.
213. The majority of viable shellfish beds in Wales either lie within or near areas which have been designated as either a Special Area of Conservation (“SAC”), or a Special Protection Area (“SPA”). These are collectively referred to as European Marine Sites (“EMS”).
214. The Several and Regulating Shellfishery Order regime, under Part 1 of the Sea Fisheries (Shellfish) Act 1967, must be operated in a way which is compliant with the Welsh Ministers environmental obligations, including those imposed by the Habitats Directive (Council Directive 92/43/EEC) and the Conservation of Habitats and Species Regulations 2010 (S.I. England and Wales 2010/490). The operation of these two overlapping but often apparently conflicting regimes has proved very difficult in practice.
215. When a proposed fishery is within or near an EMS in Wales, the Welsh Ministers must assess whether the fishery is likely to have a significant effect (either alone

or in combination with other projects in the area) on the EMS site. If it is likely to have a significant effect on the site, the Welsh Ministers can only proceed with making the proposed Order once they have been able to ascertain, beyond all reasonable scientific doubt, that the proposed fishery will not adversely affect the integrity of the relevant site for the entire period of the Order. This process is known as a Habitat Regulation Assessment.

216. In order to reach the necessary level of environmental certainty, it is often necessary to restrict the fishing techniques by way of writing conditions or restrictions onto the face of an Order (so that they would be enforceable). However, that approach also generates a number of issues, particularly in that it offers no flexibility to operate the fishery over the number of years for which the Order is valid. Those techniques may need to be adapted from time to time so that the fishery is operated in the most efficient way which ensures that it remains non-damaging to the marine environment.

217. The proposed changes to the 1967 Act will therefore help to ensure greater confidence in complying with the Welsh Ministers' environmental obligations, whilst creating sustainable and economic shellfishery opportunities in Wales.

Purpose of the legislation

218. Due to the current inflexibility of the provisions contained in the 1967 Act and the environmental obligations upon the Welsh Ministers, the Bill will amend Part 1 of the Sea Fisheries (Shellfish) Act 1967 as follows:

- The Welsh Ministers will have a new power to issue a Site Protection Notice ("SPN") requiring the Grantee to undertake any steps the Welsh Ministers consider necessary, where the Welsh Ministers are of the opinion that that action is necessary in order to avoid damage to an EMS as a result of the operation of the shellfishery. An appropriate Appeals Mechanism in relation to the SPN procedures will also be established.
- Where an SPN has been issued, has not been cancelled and is not subject to a pending or possible appeal, the Welsh Ministers will have a new power to vary or revoke the Several and Regulating Order itself, but only in order to reflect the effect of the SPN in its final form.
- The Welsh Ministers will be obliged to include any provision in a proposed Shellfishery Order that they consider necessary in order to ensure that the fishery in question will not lead to harm to any EMS or the marine environment more generally.
- It will no longer be necessary for the Welsh Ministers to specify the form and content of an application for a Shellfishery Order in a Statutory Instrument. The Welsh Ministers will simply be able to specify the relevant requirements for making such an application in future. The Welsh Ministers will also have the power to require the applicant's to submit any further information that the Welsh Ministers think necessary in support of an application for a shellfishery Order. These new powers will allow

greater flexibility and will help to ensure that the Welsh Ministers can obtain the most relevant and up to date information available at the time of considering an application for a Shellfishery Order.

Intended Effect

219. The legislation will result in:

- Increased confidence in complying with the Welsh Ministers' environmental obligations.
- Sustainable and economic shellfishery opportunities in Wales.
- The opportunity for Several or Regulating Orders to be granted over longer periods than is presently possible, which increases confidence for the grantee regarding their investment and ability to run a successful business. It is hoped that this will lead to stability and growth for the industry, with associated benefits to Welsh economy.

Marine Licensing (Part 6)

Background

220. The Marine and Coastal Access Act 2009 (MCAA) provided a new single licensing system for most developments at sea. An unintended consequence of the MCAA was that the charging powers available to the marine licensing authority were not as extensive as under the licensing system it replaced - Part 2 of the Food and Environment Protection Act 1985 (FEPA). FEPA allowed for the recovery of the costs of varying licences and of post-licence monitoring which the MCAA does not.
221. The MCAA does not provide charging powers for the marine licensing authority in Wales in relation to pre-application costs; monitoring of a marine licence, to include assessment of monitoring reports, discharge of conditions and compliance testing; transferring a licence; or varying, suspending or revoking a licence.
222. The Welsh Government consultation launched in October 2013, on the proposals for the Bill set out the proposals for marine licensing fees and charges – to extend the scope of the charging powers for marine licensing, based on the principle of greater cost recovery (further detail set out in Chapter 4)

Current Position

223. The licensing authority functions of the Welsh Ministers, in accordance with section 98 of the MCAA, have been delegated to Natural Resources Wales (NRW), for them to administer the marine licensing system in Wales²⁹. Due to the limitations of the existing charging powers, there is currently a shortfall between fees received and necessary expenditure that NRW incurs in exercising the licensing authority functions.
224. The current inability of NRW to charge for all the marine licensing related services it provides is not sustainable and will ultimately result in a diminished service to applicants in Wales if the gaps in fee charging powers are not resolved.
225. The existing application fees are set out in the Marine Licensing (Application Fees) (Wales) Regulations 2011³⁰ (Fees Regulations 2011). The enabling powers for those Regulations is under section 67 (2) of the MCAA. There are also powers to charge fees under The Marine Works (Environmental Impact Assessment) Regulations 2007 (as amended)³¹ (MWR) and additional charging powers under 67 (5) of the MCAA, and in relation to testing certain substances under section 107 (3) of MCAA.

²⁹ <http://www.legislation.gov.uk/wsi/2013/414/contents/made>

³⁰ <http://www.legislation.gov.uk/wsi/2011/555/contents/made>

³¹ <http://www.legislation.gov.uk/uksi/2007/1518/contents/made>. The main provisions are s section 24A - in respect of expenses incurred in assessing and interpreting the results of any monitoring measure; and schedules 2 and 4 in relation to screening and scoping.

226. The marine licensing fees and charging provisions in the Bill, allow the licensing authority to charge fees to recoup costs in relation to the services provided by them in carrying out the marine licensing functions.
227. A Welsh marine licensing fees review is currently being undertaken by NRW and the Welsh Government. The principles to be followed for the review will be in line with the HM Treasury Guidelines “Managing Public Money” (July 2013). The principles are to:
- Review and update where appropriate the fees for marine licensing, including the use of the powers contained in the Bill.
 - Identify and implement opportunities for efficiencies and streamlining of service for marine licensing.
 - Minimise charging increases wherever possible, in accordance with one of the principles for the establishment of NRW³².
 - Define a clear, transparent and proportionate charging model.
228. Following Royal Assent and establishment of extended fee charging powers, the Welsh Government will consult on the outcome of the current fees review.
229. The Regulatory Impact Assessment (RIA) provides estimates of the likely future costs of the extended fee charging powers, based upon best available information, including actual costs to NRW in administering marine licensing and using proxy data from other marine licensing authorities (e.g. the Marine Management Organisation in England (MMO)).

Purpose of the legislation

230. The objective is that those who benefit from a marine licence should, as far as possible, bear the full cost to the licensing authority for administering that marine licence. This is in line with HM Treasury guidelines that the licensing authority should aim for achieving full cost recovery in carrying out its regulatory responsibilities.
231. The Bill gives the licensing authority greater flexibility in the way that they charge marine licence fees. In particular, the powers enable the licensing authority to charge fees to recover the following expenses:

Pre-application work

232. Pre-application work consists of:
- Early discussions with applicants to provide a steer/guidance on likely issues or the stages in the licensing process.
 - Provision of informal advice on projects / draft applications (whilst this is an informal stage, engagement on such matters can be extensive) – pre-application activity can include the marine licensing authority consulting other organisations, for which a charge may be made to the licensing authority for provision of services e.g. scientific advisors such as the Centre for Environment, Fisheries and Aquaculture Science (Cefas).

³² *Business Case for Single Body* - <http://wales.gov.uk/topics/environmentcountryside/consmanagement/nef/publications/seb/businesscase/?lang=en>

- Informal review of draft supporting documents;
- Time spent attending pre-application related meetings; this may include the costs of travel and overnight stays etc.

233. NRW currently deal with basic pre-application queries at no charge. Basic pre-application queries are considered to include up to two hours of activity. Subject to the outcome of the fees review, it is anticipated that after these two hours have been utilised, if further engagement is required, then a pre-application fee would be required for the service.

Monitoring of a marine licence, to include assessment of monitoring reports, discharge of conditions and compliance testing

234. A monitoring charging power is required to allow for the recovery of costs incurred by the licensing authority in monitoring the licensed activity following the grant of a marine licence. Such monitoring activity benefits the licence holder by enabling potential issues in relation to the continuation of a licence to be identified and resolved. Costs may include environmental monitoring costs, discharge of conditions and licence administration costs including compliance with licence conditions e.g. it would cover expenses incurred in assessing and interpreting the results of any monitoring measures required for a project, and costs associated with the monitoring and subsequent data evaluation of disposal sites for dredged material.

Varying, suspending, revoking or transferring a licence under section 72 of the MCAA

235. The Bill enables the licensing authority to recoup costs when dealing with an application by a licensee to carry out licence variations, suspensions, revocations or transfers under section 72 of the MCAA. The Bill also enables the licensing authority, if it carries out any investigation, examination or test which in its opinion is necessary or expedient to enable it to determine an application by a licensee for a variation, suspension, revocation or transfer of a licence under section 72, to require the licensee to pay a fee towards the reasonable expenses of that investigation, examination or test.

Suspensions or revocations:

236. The Bill provides that costs associated with a suspension or revocation under section 72 of the MCAA may be recouped. In such cases, the licensing authority can require the licensee to pay a fee for dealing with the application.

237. Section 72(1) of the MCAA provides that a licensing authority may by notice vary, suspend or revoke a licence granted by it if it appears to the authority that there has been a breach of any of its provisions.

238. Section 72(2) of the MCAA provides that a licensing authority may by notice vary, suspend or revoke a licence granted by it if it appears to the authority that:

- In the course of the application for the licence, any person either supplied information to the authority that was false or misleading or failed to supply information, and
- If the correct information had been supplied the authority would have, or it is likely that the authority would have, refused the application or granted the licence in different terms.

239. Section 72(3) of the MCAA provides that a licensing authority may, by notice, vary suspend or revoke a licence granted by it if it appears to the authority that the licence ought to be varied, suspended or revoked:

- Because of a change in circumstances relating to the environment or human health.
- Because of increased scientific knowledge relating to either of those matters.
- In the interests of safety of navigation.
- For any other reason that appears to the authority to be relevant.

Variations

240. Variations fall into three main categories –

- Administrative changes
- Non-administrative and non-substantial changes that require re-assessment.
- Substantial / material changes that require new assessment.

241. The category a variation falls into is considered on a case by case basis and if considered substantial, a new application is likely to be required.

242. The costs associated with an application by a licensee for a variation under section 72 of the MCAA may be recouped under the powers in the Bill.

Transfers:

243. Under section 72(7) of the MCAA, the licensing authority at the request of a licensee may transfer a licence to another person. Costs associated with the transfer may be recouped under the powers contained in the Bill.

Use of powers

244. The changes to the marine licensing fee charging regime using the powers in the Bill, will enable the licensing authority to recover, where possible, costs relating to the marine licensing functions they carry out.

245. These powers add to the existing charging powers available to the licensing authority under the MCAA and the MWR. Having an improved suite of powers to charge for services provided (actual fees and charges will be established following a fees review and public consultation), will ensure certainty for industry in terms of forward planning the licensing requirements and costs for projects.

246. The powers are a mix of fees that will be set in secondary legislation and a direct power to charge. The fees will be subject to further public consultation. The power to set charges by regulations will be exercised by the Welsh Ministers.
247. The fees to be charged will be regularly reviewed by Welsh Government and the Fees Regulations, which are currently the Marine Licensing (Application Fees) (Wales) Regulations 2011³³, amended as required to ensure an appropriate, efficient and effective licensing regime that enables the licensing authority to recover its costs.
248. Where costs can be difficult to predict, for example the costs of investigations and examinations and tests required to determine an application, flexibility is required to enable recovery of costs on a case by case basis. Given the ad hoc nature of such costs, the licensing authority power to determine such fees will be delegated to NRW as the body responsible for administering the marine licensing regime. This is the same way in which the costs of investigations, examinations or tests are recovered in exercising the power in section 67 (5) of the MCAA. That power is delegated to NRW, who decide whether an investigation, examination or test is required to determine an application and, if so, the additional fee that should be paid by the applicant.

Intended Effect

249. The objective is to amend the marine licensing fees regime to provide the licensing authority with sufficient powers to charge for a wide range of activities it undertakes as part of its marine licensing functions. Fees will be based on the principle of greater cost recovery. In broad terms, it is proposed that the MCAA is amended to include powers to set and charge fees in relation to pre-application work and the monitoring of a marine licence. It is also proposed that the MCAA is amended to include powers to set and charge fees where an application is made by a licensee for the transfer, variation, suspension or revocation of a licence under section 72 of the MCAA.
250. The legislation will result in:
- An improved suite of charging powers.
 - Extensive cost recovery.
 - Support for the achievement of an effective and efficient service.
 - Greater clarity for users of the marine licensing regime.

³³ <http://www.legislation.gov.uk/wsi/2011/555/contents/made>

Miscellaneous and General (Part 7)

Flood and Coastal Erosion Committee

Background

251. Flood Risk Management Wales (FRMW) was established under section 22 of the Flood and Water Management Act 2010, as a Regional Flood and Coastal Committee to scrutinise the work and budget of Environment Agency Wales, now Natural Resources Wales (NRW). It was originally established by Environment Agency Wales but carried over to Natural Resources Wales as a statutory committee. This was the only statutory committee transferred to NRW as all others were dissolved or made non-statutory. The role of FRMW focuses on scrutinising and advising NRW on its activities.
252. FRMW is composed of an independent chair appointed by the Welsh Ministers and up to 24 members. Up to 8 members represent Lead Local Flood Authorities and the rest reflect the skills needed by the Committee, including independent members. All members are currently appointed by NRW who also provide the secretariat role.

Current Position

253. Under the Flood and Water Management Act 2010 (the “2010 Act”), provisions were made to put in place Regional Flood and Coastal Committees for England and Wales. In Wales, the Regional Flood and Coastal Committee is Flood Risk Management Wales (FRMW). The committee was put in place to scrutinise the programme and budget of Environment Agency Wales (now Natural Resources Wales) when it was part of the wider Environment Agency covering Wales and England.
254. As the provision currently stands within the Flood and Water Management Act 2010, NRW must:
- Consult with FRMW on the way in which they propose to carry out their flood and coastal erosion risk management functions.
 - Take into account any representations (whether made in response to a consultation or otherwise) made by FRMW about the exercise of their flood and coastal erosion risk management functions in that region.
255. In addition, the 2010 Act states that:
- NRW may not implement their flood and coastal programme without the consent of the committee;
 - NRW may not issue a levy without the consent of the committee; and
 - NRW may not spend revenue without the consent of the committee
256. The 2010 Act and the formation of the FRMW committee pre-dates the establishment of NRW. NRW now covers a wider role than the former Environment Agency Wales had and has appropriate scrutiny in place in relation to how it carries out its functions through the NRW Board.

257. FRMW has no statutory duties in law and its function and purpose is defined by what NRW must do in terms of consulting and taking advice from the committee and what NRW cannot do without the consent of the committee.

258. Under the current regime there exists dual accountability in relation to NRW's flood programme which is scrutinised by both FRMW and the NRW Board.

Purpose of the legislation

259. A recent review carried out by NRW on FRMW expressed concern about this dual accountability in relation to their flood risk management duties. In particular there is overlap in the roles of the FRMW Committee and the NRW Board. FRMW have to authorise NRW's flood risk management investment programme under section 23 of the 2010 Act, which duplicates one of NRW Board's own functions. The NRW review also indicated that the role and purpose of FRMW is unclear, with members displaying varying levels of understanding of flood risk management issues. However, the review did acknowledge the value of having an independent voice in flood risk management for Wales and supported the need for FRMW. In its current form, the committee only focusses on the work on NRW, however there are a wider range of bodies contributing to flood risk management in Wales and therefore a wider remit to encompass these bodies has been identified as being important.

260. The purpose of this new legislation is to remove and change some of the statutory functions of the current FRMW committee to move away from a scrutiny committee to a committee with a wider, advisory/consultative role. In doing so, this would remove the duplication of work between FRMW and the NRW Board and provide advice to the Welsh Ministers on a wider range of flood and coastal erosion issues from various bodies, not just to NRW.

261. The Minister for Natural Resources has overall responsible for flood and coastal erosion risk management in Wales. The committee should therefore be a body capable of providing advice to the Welsh Ministers on the wider risks and benefits of flood and coastal erosion risk management in Wales and cover all sources of flooding and coastal erosion, not just main rivers and the sea, as at present through NRW. It should also be able to provide advice and assistance where it is required. A new committee with such a holistic overview will help to provide assurances that there is a complete understanding of flood and coastal risk in Wales and offer solutions that are not limited to one organisation's duties and consider wider issues such as the risks associated with climate change.

Intended Effect

262. The legislation will result in:

- Provision of advice to the Welsh Ministers which includes all sources of flooding and coastal erosion risk.
- Removal of dual accountability for NRW.
- Removal of the ability of the committee to agree the programme/budget of NRW, which will be the responsibility of the NRW board.

Land Drainage

Background

263. The Bill removes the requirement to advertise in local newspapers and the London Gazette allowing Internal Drainage Boards (IDB) and NRW the flexibility to choose how they advertise and communicate the relevant notices and procedures, enabling the key audience to be targeted. Issues of appeals by Local Authority representatives, raised at IDB Board meetings, are also addressed as part of the Bill.
264. The Land Drainage Act 1991 sets out the methods used to calculate drainage rates. Part of the methodology relies on 1992 land valuations undertaken by local authorities. Although there is an audit trail which shows current drainage rates were based on this data, many of the original local authority records setting out the valuations are not now available.

Current Position

265. There is currently a requirement to advertise a range of notices, procedures and orders in newspapers, and in some cases, specifically the London Gazette.
266. The requirement to advertise a range of notices, procedures and orders solely through newspapers is inflexible and out of date. The cost of advertising in local newspapers is also often disproportionate to the benefit.
267. The current advertising process is no longer appropriate for a number of reasons:
- A legal obligation requiring the publication of changes in Wales within a London based paper does not reflect devolutionary changes.
 - More modern techniques, including online advertising and direct local consultation with those affected would be more effective, and reduce costs.
 - Changes to remove this requirement have already been made for IDBs wholly in England, via the Water Act 2014.
268. IDBs raise income primarily through powers under section 36 of the Land Drainage Act 1991. There is existing provision for appeals by ratepayers against drainage rates and by local authorities against the precept raised by NRW on the IDB. There is, however, no provision for local authorities to appeal the non NRW element of the IDB expenses, because the IDB Board itself sets the levy and contains a majority of local authority nominated members.
269. The Land Drainage Act 1991 also sets out the methodology to calculate drainage rates that are to be paid by landowners. Section 37 sets out the method for apportionment of drainage expenses, which includes a reference to the local authority rating lists of 1992. The Wales Audit Office qualified the most recent accounts of Caldicot and Wentlooge IDB because of the old land valuations. Similar issues (but on a smaller scale) exist for other Internal Drainage Districts in Wales. The valuations in question are also over 20 years old.

Purpose of the legislation

270. The Bill aims to amend all relevant sections in the Land Drainage Act 1991 to allow for a wider, more targeted distribution of notices (e.g. use of electronic means, parish notice boards) whilst retaining a fair, open and inclusive process, taking full advantage of local knowledge to ensure that the advertising reaches the appropriate people. It also provides for an appeal mechanism for local authorities to challenge levies issued by NRW. It will also enable the Welsh Ministers to determine a more appropriate and up to date, method of determining property values.

Intended Effect

271. The intention is to create a more cost effective way of advertising which allows the advertiser to determine how to target people affected by any changes so as to achieve the most effective dissemination of information.

272. Protection currently afforded through local authority representation on IDBs is to be replaced by putting in place a mechanism for local authorities to appeal to the Welsh Ministers, in the event that they consider a special levy determination by NRW to be unreasonable. This could be done by extending the existing provision for appeals to the entire levy. The Welsh Ministers will then consider any objections and make such an order in respect of levies as they consider just.

273. Enabling the Welsh Ministers to make regulations would allow consultation and discussion to take place with the appropriate parties to ensure that the valuation method used is accurate and up to date. This will also allow those methods determined by regulations to be amended in the future, as appropriate, thus, assuring a level of flexibility in the process.

Power of entry: compliance with order for cleansing ditches

Background

274. Section 28 of the Land Drainage Act 1991 (LDA 1991) sets out that a land owner or occupier may apply to an Agricultural Land Tribunal (ALT) for an Order to require a neighbouring landowner to improve their drainage, so as to remove the offending excess water flow from their land. Where a respondent does not comply with the work required to be carried out by an Order, section 29(2) of the LDA provides that the Welsh Government or a drainage body acting on their behalf may enter the land to carry out the work and recover the costs from the respondent. It is not clear from section 29(2) that the Welsh Ministers also have power to enter the respondent's land for the purpose of inspecting whether the order made under section 28 has been complied with.

275. The number of cases referred to the Welsh Government is infrequent, and amount to one every two years on average. However the lack of an express power of entry is still an issue because where it appears that the order has not been complied with, it is not clear that the Welsh Government's agent can inspect the land to see if the work has been done.

Current position

276. The current position is limited in the way that Welsh Government agents are not able to investigate alleged failures to comply with the terms of an ALT Order. If the Welsh Ministers request an expert agents' report on alleged non compliance with an ALT Order and access to land is refused, they do not have an express power to authorise an appointed land drainage expert agent to enter land and report on alleged failures to comply with the terms of an ALT Order. This limitation is undermining the governance of an ALT.
277. For example, in 2012 an Applicant referred their case to the Welsh Ministers under the provisions of section 29(2) of the Land Drainage Act 1991, to the effect that the works ordered by an ALT had not been carried out. Welsh Ministers were unable to verify whether the works in question had been carried out as the appointed land drainage expert agent was refused permission by the Respondent to carry out an inspection on his land. As the expert was unable to complete his report Welsh Ministers were unable to determine whether the terms of the ALT Order had been complied with. The case was abandoned without redress for the Applicant.

Purpose of the legislation

278. The amendment to the Land Drainage Act 1991 aims to clarify the law and to create a right of entry to land to enable Welsh Government agents to investigate alleged non-compliance with an ALT Order in cases where access is refused by a party to that Order.

Intended effect

279. The Bill creates a right of entry to land to enable Welsh Government agents to investigate alleged non-compliance with an ALT Order in cases where access is refused by a party to that Order. This will enable the Welsh Government to take positive action in relation to ALT cases contributing to a higher success rate of resolution of ALT Orders.

Chapter 4: Consultation

280. The Bill follows three previous public consultations in relation to the Welsh Government's commitments on and proposals for smarter and more joined-up planning and management of Wales' natural resources. These were the 2010 consultation, '*A Living Wales: a new framework for our environment, countryside and seas*' and the 2012 Green Paper, '*Sustaining a Living Wales*'. A White Paper, '*Towards the Sustainable Management of Wales' Natural Resources: Consultation on proposals for an Environment Bill*', on the legislative proposals for the Bill was subsequently issued in 2013. A summary of the consultations and responses to them is set out below.

A Living Wales: a new framework for our environment, countryside and seas

281. In September 2010 the Welsh Government published a consultation, '*A Living Wales – a new framework for our environment, our countryside and our seas*'³⁴. The consultation proposed a new strategic approach to the management of the environment and tackle issues such as the failure to meet Wales' 2010 biodiversity targets. The consultation set a broad direction of travel for future policy reform and development and addressed the findings of the associated inquiry led by the National Assembly's Environment and Sustainability Committee.

282. The Living Wales consultation proposed the ecosystem approach, taken from the Convention on Biological Diversity, as a basis for the new policy framework. In doing so it highlighted the links between healthy, resilient ecosystems and Wales' long-term well-being. It also established a guiding overarching aim, based on sustainable development principles: '*to ensure that Wales has increasingly resilient and diverse ecosystems that deliver economic, environmental and social benefits*'.

Sustaining a Living Wales

283. The Green Paper '*Sustaining a Living Wales*' was published in January 2012, with an eighteen week consultation which sought views on a fresh approach to the management and regulation of the environment in Wales to inform the content of the Bill. In particular, the consultation invited views on the Welsh Government's preferred approach to develop natural resource management planning at local and national levels to enable better decision-making, with a focus on regulated businesses and those who use and manage land and water.

284. The consultation sought views on a range of proposals, including:

- Changes to current policies and systems that may be needed in order to implement an ecosystems approach to managing the environment and natural resources.

34

<http://www.webarchive.org.uk/wayback/archive/20110228135119/http://wales.gov.uk/consultations/environmentalndcountryside/eshlivingwalescons/?lang=en&status=closed>

- The scope and opportunities for streamlining or simplifying how to manage and regulate the environment and its natural resources.
- The development of new market instruments and the potential to provide opportunities to improve the management of natural resources.
- The development of natural resource management planning at local and national levels to provide a new strategic framework for decision-making in relation to the environment.
- The development of an Environment Bill for Wales, to be introduced in the second half of the Assembly term, informed by the responses to the Green Paper consultation.

285. Responses to the Green Paper indicated an overwhelming level of agreement with the aspirations set out in the consultation and commended the Welsh Government's willingness to take a fresh and innovative approach to the holistic environmental regulation and management.

286. Many respondents also urged the Welsh Government to continue to position the halting and reversing of biodiversity loss at the centre of future proposals.

287. There was a substantial degree of support for the key proposals in the Green Paper, namely the move towards an ecosystem approach, the development of natural resource planning at local and national levels and the streamlining and simplification of regulatory regimes.

288. Although some respondents advocated keeping the current planning system and systems for environmental and natural resource planning separate, the majority expressed support for integrating natural resource planning with the existing planning system.

289. In summary, the response to both the 2010 '*A Living Wales: a new framework for our environment, countryside and seas*' and the 2012 '*Sustaining a Living Wales*' Green Paper demonstrated considerable support for a fresh approach to the planning and management of natural resources in Wales.

290. The Green Paper and the published summary report can both be found at:
<http://gov.wales/consultations/environmentandcountryside/sustainingwales/?status=closed&lang=en>

Towards the Sustainable Management of Wales' Natural Resource: Consultation on proposals for an Environment Bill

291. In October 2013, the Welsh Government published the White Paper '*Towards the Sustainable Management of Wales' Natural Resources: Consultation on proposals for an Environment Bill*'. The consultation built on the findings of the Green Paper consultation, setting out more fully the legislative proposals for natural resource management to support delivery of improved management of Wales' natural resources.

292. The consultation invited views on a number of legislative aspects and included proposals to:

- Enable NRW to manage Wales’ natural resources in a more joined up way.
- Ensure the decisions we take in relation to natural resources support sustainable development.
- Simplify and streamline existing processes and put in place a better quality evidence on Wales’ natural resources.
- Put in place legislation that is right for Wales and is aligned to overarching priorities.
- Ensure the principles of integrated natural resource management are at the heart of the Bill, ensuring that the value of our ecosystems is properly considered.

293. The White Paper consultation further developed the approach set out in the 2012 Green Paper by presenting legislative proposals for natural resource management to support delivery of the vision for improved management of Wales’ natural resources through an Environment Bill for Wales.

294. A total of 182 consultation responses were received. A breakdown of responses is provided below.

Table 2: Breakdown of responses by sector

Category	Number	% of total
Third Sector	35	19%
Local Authorities / Community & Town Councils	28	16%
Government Agency / Other Public Sector	18	10%
Professional Bodies and Associations	48	26%
Members of the Public	15	8%
Businesses	31	17%
Academic Bodies	6	3%
Other	1	1%
Total	182	100%

295. Overall, the responses to the White Paper demonstrated significant support for the package of legislative proposals which underpin the Bill. Respondents welcomed proposals on clear legal definitions, although some indicated that there was a need to emphasise more strongly particular issues such as biodiversity, environmental limits and the precautionary principle. With regards to biodiversity, a number of stakeholders responded that the current biodiversity duty contained in section 40 of the Natural Environment and Rural Communities (NERC) Act 2006 should be strengthened and some commented that the success achieved through implementation of the section 40 duty has been mixed or limited and that the Bill provided an opportunity to review the duty’s effectiveness and address shortcomings. As a result of the feedback on the White Paper, the Bill includes an

improved biodiversity duty. In relation to environmental limits, the Well-being of Future Generations (Wales) Act 2015 has been amended to include the concept within the overarching goals. In addition, the Environment Bill addresses the concept of limits via the definition of sustainable management of natural resources, using the terminology from the Convention on Biological Diversity – in that our resources are used in a way and at a rate that: a) maintains and enhances ecosystem resilience; and b) enables our natural resources to continue to provide ecosystem services not only for current generations but future generations.

296. A number of respondents requested more detail on implementation of the proposed area-based approach and highlighted that the value of existing environmental legislation should be recognised in developing the legislative provisions. This has informed the development of a more detailed definition of integrated natural resource management, which is included in the principles of sustainable management of natural resources (section 4). This includes the steps required to deliver an area-based approach. In addition, work has been taken forward in parallel to demonstrate and engage a wide range of stakeholders in relation to how the area-based approach can be applied in practice, which will further inform its implementation under the Bill. The Bill has also been designed to work alongside and integrate the requirements in existing legislation.
297. Respondents supported the development of a statutory NNRP setting out the strategic commitments and priorities based on the opportunities and challenges facing natural resources in Wales. There was support for an evidence based approach and the importance of gathering and sharing data was highlighted, but respondents also emphasised the need to manage risks in relation to resourcing and the potential burden on public bodies and the third sector. These comments have been addressed in the Bill in a number of ways, including through the principles of sustainable management of natural resources and through the nature of the duty on public bodies to share information with NRW which complements the Well-being of Future Generations (Wales) Act 2015, in which public bodies are also required to co-operate.
298. The majority of respondents supported the overall package of proposals to enable NRW to work in new and different ways. Many respondents recognised that experimental powers (Powers of Innovation) could help implement innovative ways of working. Many also felt that payment for ecosystem services could provide practical opportunities to reward positive land and water management. A number of respondents raised concerns that there was a need for an approach that safeguarded irreplaceable species or habitats, rather than biodiversity conservation being a trade-able asset. However, it is important to note that existing legislation in relation to these aspects will still remain in force and therefore current nature conservation provisions on species and habitats will remain. As such the provisions in the Bill will not over-ride existing legislation protecting certain species and habitats.
299. Respondents also highlighted the need to address resource and financial implications in the short to medium term as a result of increased collaboration and implementation of the area-based approach. The potential for long-term

resource efficiency savings was also however recognised. The Environment (Wales) Bill has therefore been designed to complement and work with the framework established under the Well-being of Future Generations (Wales) Act 2015, so that the requirements are fully integrated with the duties under that Bill.

300. The White Paper included a proposal to provide the Welsh Ministers with powers to clarify the alignment of NRW's duties and other primary legislation with the new high-level purpose. Whilst there was some support of this proposed 'enabling power' to make future changes, many stakeholders felt concerned about the principle of the power to amend primary legislation being granted in this way. Some respondents highlighted that any power should be limited and that the Welsh Ministers could use guidance instead to direct NRW's activities. After considering the consultation responses, it was therefore decided not to include this power within the Bill.
301. A wide variety of responses were received on the waste management and resource efficiency proposals, with a majority in favour of the overall package. One of the key themes identified in the responses related to the need to allow a certain amount of co-mingling of recyclable wastes, which may be dependent on issues such as the amount of suitable space for waste storage available or the amount of waste being produced. A number of respondents also expressed concerns in relation to the practicality of implementation, cost and enforcement, which will be considered as the regulations are implemented. It was suggested that the proposals might place additional cost or space requirements on some businesses, although no evidence was presented to qualify that assessment. Most respondents agreed with the proposed list of materials to ban from landfill or energy from waste facilities. The most common concern raised was that in relation to the enforceability of any ban. With regards to the proposal to prohibit the disposal of food waste to sewer, the majority of respondents considered that a ban should apply to businesses, the public sector and households.
302. The consultation found broad support for both proposals in relation to changes to the carrier bag charging scheme. Some concern was expressed from retail associations and local authorities on the additional cost burden that may emerge if a minimum charge on bags for life was implemented in future. Some organisations suggested that the net proceeds from the carrier bag charge should be directed to environmental charities only. The proposal to continue to direct net proceeds to all charities was welcomed by businesses and professional bodies and agencies. In response to the point about additional cost burden, it is not the policy intention to invoke the power to place a minimum charge on other types of carrier bags through regulations immediately as the Welsh Government does not wish to unnecessarily legislate. Instead, the opportunity has been taken to amend the Climate Change Act 2008 to ensure that the current regime can be adapted in a flexible and targeted way through the use of Regulations, if future evidence identifies that this course of action is necessary. At that point a full and detailed RIA would be undertaken on the regulations encompassing the options available to the Welsh Ministers. The impact on both retailers and local authorities would therefore be consulted on and assessed to ensure that any adverse impacts of the proposed options were evaluated and where possible reduced.

303. Overall, there was broad agreement for the proposals in relation to marine licensing, shellfisheries management and land drainage.
304. The White Paper and the published summary report of the consultation responses received on the White Paper consultation can be found at: <http://wales.gov.uk/consultations/environmentandcountryside/environment-bill-white-paper/?status=closed&lang=en>
305. The responses were carefully considered following the end of the consultation period and these were used to inform the development of the Bill.

Stakeholder engagement on the Sustainable Management of Natural Resources

306. During the White Paper consultation period a number of workshops and events were held. These included a Natural Resources conference on 25 November 2013, attended by over 160 people from a range of different sectors. The conference provided an opportunity to discuss the proposals which have led to the Bill, as outlined in the White Paper and other Welsh Government initiatives. Round-table discussions at the conference focused on the proposals relating to the area-based approach for natural resource management. In addition to the conference, four regional consultation events were held to discuss the White Paper proposals. The regional workshops were held on:
- Monday 2 December 2013, Merthyr Tydfil.
 - Wednesday 4 December 2013, Aberystwyth.
 - Monday 9 December 2013, Llandudno Junction.
 - Friday 10 January 2014, Cardiff.
307. The comments captured at the conference and the regional events informed the consultation summary report and further development of the Bill.
308. Discussions on the development of the Bill since the White Paper consultation have been coordinated through the Natural Resources Reference Group. The Reference Group is the Department's external stakeholder forum, comprising representatives from key stakeholders including NGOs, business, local authorities, farming sector and NRW. The Reference Group has discussed aspects of the Bill throughout its development and meets approximately every two months.
309. Information on the Bill has also been provided to stakeholders via the Natural Resources e-bulletin. The e-bulletin is currently sent to nearly 1600 external stakeholders every month.

Additional consultation and engagement

310. The consultations listed above have been supplemented by a range of other engagement activities on the proposals which have been developed and are now contained in the Bill. These have helped to refine the development of the Bill and continue to be considered in implementing the provisions.

Climate Change

The Wales We Want

311. Both The Wales We Want Interim³⁵ and Final Reports³⁶, published in June 2014 and March 2015 respectively, showed that climate change was considered the single most critical issue facing future generations. The final report represents the overall summaries of a year-long conversation with people across Wales which started in February 2014. The conversation was undertaken in association with the development of the Well-being of Future Generations (Wales) Act 2015 and engaged nearly 7000 people.

UK Committee on Climate Change

312. In January 2013, the UK Committee on Climate Change (UKCCC) produced their second annual report *“Progress reducing emissions and preparing for climate change in Wales”*³⁷. As part of the report, the Welsh Government requested the UKCCC to provide an assessment of legislative options on climate change mitigation and adaptation provisions that might be appropriate to include in the Bill.

313. In response to the request, the UKCCC undertook an analysis that included considering the current and developing legislative landscape in Wales and assessing the provisions in the UK Climate Change Act 2008 and the Climate Change (Scotland) Act 2009. The conclusions from this analysis were:

- Setting a statutory underpinning to Wales’ climate change targets could help to provide certainty to policy-makers, businesses, investors, and wider society in Wales and strengthen incentives to reduce emissions.
- There is a case for considering longer-term targets, beyond 2020, given the long lead time for policy development and to help ensure long-term investments take account of carbon impacts.
- Statutory targets would need to be based on a robust and comprehensive assessment of the cost-effective emission reduction potential that is within Welsh Ministers’ sphere of influence.
- Any legislation should also set duties to develop policies to meet targets but also build in flexibility – either in the nature of targets (e.g. carbon budgets) or allowing revisions on the basis of improved scientific knowledge and/or understanding of abatement potential for example.

³⁵ <http://thewaleswewant.co.uk/sites/default/files/Interim%20Report-July2014%20ENG.pdf>

³⁶ <http://thewaleswewant.co.uk/sites/default/files/The%20Wales%20We%20Want%20Report%20ENG.pdf>

³⁷ <http://www.theccc.org.uk/publication/progress-on-reducing-emissions-and-preparing-for-climate-change-in-wales/>

- Given the proposed Sustainable Development (SD) duty for public bodies in Wales, the Welsh Government should consider whether the duty could be strengthened to ensure that public bodies are clear on how they are contributing to the Welsh Government's emission reduction targets as well as adaptation objectives, or whether this is something to be considered further for the Environment Bill.
- In either case, duplication of effort and reporting from public bodies should be avoided.

Climate Change Commission for Wales

314. In July 2013 the Climate Change Commission for Wales (CCCW) submitted a Position Paper on the development of the Environment (Wales) Bill, which was in response to a contribution request from the Minister for Natural Resources and Food.

315. A series of recommendations were made, including that “*there is value in considering making Welsh greenhouse gas emission targets statutory*”. Particular reference was made to the approach taken in Scotland with targets set by Scottish Ministers. There was consensus from the Commission members that either the Well-being of Future Generations (Wales) Act 2015 or the Environment (Wales) Bill needed to include targets set by the Welsh Ministers, set in the context of global/European standards, with a wider duty to promote across the public sector.

Well-being of Future Generations (Wales) Act 2015

316. In November 2014, the Environment and Sustainability Committee published the Well-being of Future Generations (Wales) Act 2015: Stage 1 Committee Report³⁸. The report highlighted a number of responses that stated climate change goals needed to be better represented and strengthened within legislation.

317. The Commissioner for Sustainable Futures also stated in his written consultation Response to the Well-being of Future Generations (Wales) Act 2015 that:

“it is imperative that the structure of the Bill, in particular the goals, measures and principles, set the framework for tackling climate change across the public sector.”

Wider recommendations

318. Following the *Committee for the Scrutiny of the First Minister* in 2014 on the Welsh Government's Climate Change Strategy³⁹, the Committee's Chair wrote to

³⁸ [http://www.assembly.wales/laid%20documents/cr-ld10023%20-%20environment%20and%20sustainability%20committee%20-%20well-being%20of%20future%20generations%20\(wales\)%20bill%20stage%201%20committee%20re/cr-ld10023-e.pdf](http://www.assembly.wales/laid%20documents/cr-ld10023%20-%20environment%20and%20sustainability%20committee%20-%20well-being%20of%20future%20generations%20(wales)%20bill%20stage%201%20committee%20re/cr-ld10023-e.pdf)

³⁹ <http://www.senedd.assembly.wales/ieListDocuments.aspx?MId=2427>

the First Minister recommending that statutory targets for greenhouse gas emissions should be introduced into areas of policy that the Welsh Government and Assembly are wholly or mainly responsible for.

319. The letter also included the recommendation to “*consider amending the Bill to provide that [carbon budgeting] should apply in future to the Welsh Government and the other public bodies that are covered by the [Well-being of Future Generations] Bill*”.

320. During the Environment and Sustainability Committee session on 4 March 2015, it was recommended that establishing statutory climate change targets for Wales would be a positive step in tackling climate change⁴⁰.

321. During a Plenary debate on 11 March 2015, there was full consensus on the motion that the Assembly “Looks forward to the Environment Bill through which the Welsh Government will legislate for statutory targets to reduce greenhouse gas emissions.”⁴¹

Charges for Carrier Bags

322. Consultation and stakeholder engagement on the provisions outlined in the White Paper has taken place with the other devolved governments, the Welsh Local Government Association and several retail associations.

323. These provisions were to:

- enable the Welsh Ministers, by regulations, to provide for minimum charges to be set for other types of carrier bags, in addition to the minimum charge currently set on single use carrier bags, and
- enable the Welsh ministers, by regulations, to require sellers to apply the net proceeds of the charge to any good causes rather than to environmental good causes only.

324. Engagement with the devolved governments has been in the form of regular telephone conferences wherein information and updates on the progress of the Bill have been shared.

325. Officials have also met with representatives from the Federation of Small Businesses and attended the Association of Convenience Stores’ Responsible Retailer Forum to discuss the proposals, and where possible address any concerns raised by retailers. In addition, telephone and email contact has taken place with representatives from the British/Welsh Retail Consortium to explain the proposals. Discussions have also taken place with the Welsh Local Government Association.

326. Consultation and engagement with stakeholders will be ongoing as the regulations are developed and as part of the overarching review of the current

⁴⁰ <http://www.senedd.assembly.wales/documents/s500002294/4%20March%202015.pdf>

⁴¹ <http://www.assembly.wales/en/bus-home/Pages/rop.aspx?meetingid=3114&language=en#208241>

Welsh single use carrier bags charge. Views on the proposals and the potential impacts they may have on businesses, consumers, local authorities and the voluntary sector will be gathered and analysed to inform the future direction and development of the policy including further impact assessments.

Collection and Disposal of Waste

327. Extensive stakeholder engagement has been undertaken on the proposals set out in the White Paper. In the White Paper, the Welsh Government consulted on the segregation of recyclable waste by waste producers other than households, a requirement for waste collectors to collect waste by means of separate collection, incineration bans and landfill bans for recyclable materials and a ban on the disposal of food waste to sewer from non-domestic premises.

328. Stakeholder engagement included discussions with:

- Representatives of businesses (e.g. Federation for Small Businesses, Commerce Wales, construction sector representatives).
- The waste industry (for example, the Wales Environmental Services Association).
- The public sector (for example Wales Health Estates);
- NRW.
- The businesses sector (for example the manufacturers of food waste disposal units, Dŵr Cymru).
- Local authorities.
- Defra and the administrations in Scotland and Northern Ireland.

329. Consultation and engagement with key stakeholders on the proposals will continue and the potential impacts on businesses, consumers, local authorities and the voluntary sector will be further considered as subordinate legislation is developed under the provisions of the Bill.

Marine Licensing

330. In addition to the formal White Paper consultation process, consultation and stakeholder engagement on the marine licensing charging provisions has taken place with Defra, the other devolved administrations, NRW and other marine licensing stakeholders.

331. The consultation and engagement work has sought views on the proposals to amend the existing powers via the Environment Bill, and specifically to include the power for the licensing authority (NRW) to charge for, pre-application work, varying a licence, transferring, suspending or revoking a licence and monitoring of a marine licence, to include assessment of monitoring reports, discharge of conditions and compliance testing.

332. There has been engagement with Defra and the other devolved administrations through regular discussions on marine licensing matters, wherein information and updates on the progress of the Bill have been shared. Information has also been shared directly, seeking formal views on the provisions.

333. Marine licensing stakeholders have also been advised by NRW, as part of their involvement in the fees review work. As the work on the fees review continues, engagement with marine licensing stakeholders will continue, informally via the NRW marine licensing stakeholder group, and formally via further public consultation on the revised marine licensing fees.

Fisheries for shellfish

334. In addition to the White Paper consultation, more targeted engagement of interested stakeholders took place in 2013. This included presentations of the proposals to the 3 Inshore Fisheries Groups, the Welsh Marine Fisheries Advisory Group, and the Menai Strait Fishery Order Management Association. Welsh Government officials are also in regular contact with the fishery industry, through direct contact with fishermen, but also through regular discussions with organisations such as Seafish and the Welsh Fishermen's Association.

335. The feedback from that informal consultation exercise was, on the whole, positive towards the proposed changes relating to the Several Order regime in Wales. A possible change to the Regulating Order system was initially discussed during this exercise, which queried whether there may no longer be any demand or desire within the fishing industry for Regulating Orders in Wales (following the abolition of the Welsh Sea Fisheries Committees in 2010). In response to these discussions, the Welsh Government removed the proposals to remove or adjust the power to make Regulating Orders from the Bill and as such no provision on this matter is included in the Bill.

Flood and Coastal Erosion Committee

336. NRW have recently carried out a review of Flood Risk Management Wales which expressed concern about dual accountability in relation to their flood risk management duties and indicated that the role and purpose of FRMW is currently unclear. The review highlighted the value of having an independent voice in flood risk management for Wales and supported the need for FRMW.

337. NRW are currently accountable to both the FRMW Committee and their own board. The NRW Board is accountable to the Welsh Ministers, Wales Audit Office and the Public Affairs Committee. Changes to this committee will address this dual accountability that has been highlighted in the review and by the chief accountant at NRW.

338. The review was complemented by meetings with NRW and FRMW and provided further evidence that a change to current arrangements was required, whilst recognising the value of independent advice on flood and coastal erosion risk management.

Land Drainage

339. In 2012 the Welsh Government consulted on options for delivering IDB functions in light of 'A Living Wales' and public service delivery reforms⁴². Welsh Government officials have engaged with both NRW and the IDBs regarding their transfer and those discussions resulted in the three proposals being included in the Bill. The communication continued both through a formal Transition Group, which included representatives from Welsh Government, NRW and IDBs through regular meetings, informal telephone calls and e-mail exchanges, which are ongoing.
340. In relation to the powers of entry provisions, discussions were held initially with the Environment Agency to capture data in relation to England for land drainage issues for comparative purposes. Informal consultation has been held in relation to the preparation of the analysis required to inform the RIA. This involved discussions with Agricultural Land Tribunals, lawyers and internally with Welsh Government staff.

⁴² <http://gov.wales/consultations/environmentandcountryside/internaldrainage/?lang=en>

Chapter 5: Power to make subordinate legislation

341. The Bill contains provisions to make subordinate legislation, give directions and issue guidance. Table 3 on the following pages sets out provisions which contain powers to make subordinate legislation. Table 4 sets out powers to give directions. Table 5 sets out the powers to issue guidance. Each table explains;

- (i) The person upon whom, or the body upon which, the power is conferred.
- (ii) The form in which the power is to be exercised.
- (iii) The appropriateness of the delegated power.
- (iv) The applied procedure; that is, whether it is “affirmative”, “negative”, or “no procedure”, together with reasons why it is considered appropriate.

342. The Welsh Government will consult on the content of the subordinate legislation where it is considered appropriate to do so. The precise nature of consultation will be decided when the proposals have been formalised.

Table 3: Summary of powers to make subordinate legislation

Section	Power conferred on	Form	Appropriateness for delegated power	Procedure	Reason for procedure
Part 1 - Sustainable Management of Natural Resources					
Section 10(2)	Welsh Ministers	Regulations	Provides the Welsh Ministers with the ability to add, remove or amend a description of a person listed as a public body under	Affirmative	It is a power to amend primary legislation and therefore it is appropriate that the regulations should be subject to the affirmative procedure.

			<p>section 11(1). This power provides flexibility to respond to future changes, for example, the creation of a new public body.</p>		
Section 22(1)	Welsh Ministers	Regulations	<p>The power is necessary so that when NRW exercise its power in Article 10C of the Natural Resources Body for Wales (Establishment) Order to undertake an experimental scheme legislation which is an obstacle to that scheme may be temporarily suspended. This will be done on a case by case basis and supported by evidence from NRW.</p>	Affirmative	Affirmative procedure required as the regulations will amend a provision in existing legislation for a period up to three years.
Section 22 (6)	Welsh Ministers	Regulations	<p>The power only provides for regulations made</p>	No procedure	No decisions are required. The regulations will merely remove any suspension so that legislation is

			under section 21(1) to be revoked.		reverted to original its draft.
Section 24(1)	Welsh Ministers	Regulations	This provision provides the Welsh Ministers with flexibility to vary these timings from preparing or publishing SoNaRR and NNRP following review by them. At present the timings align with the timings under the Well-being of Future Generations (Wales) Act 2015. If these timings were amended in the future, there may be a need to amend the timings of SoNaRR and NNRP accordingly.	Affirmative	The purpose of this power is to make changes to the timing for the production of SoNaRR and NNRP so that they can be aligned with other statutory reporting requirements.
Part 2 – Climate Change					
Section 29(3)	Welsh Ministers	Regulations	This power allows for an increase to set the 2050 target as a percentage	Affirmative	The provision is considered to be of special importance due to the technical nature, where the purpose is only fixed by enabling legislation.

			<p>greater than 80%. This power enables the Welsh Ministers to respond to the conditions provided in section 32(2). For example, the advisory body in reviewing the 2030 and 2040 interim targets have to state whether the 2050 target is the highest achievable and if not what is. A recommendation from this body therefore may require the 2050 target to be increased.</p>		
Section 30(1)	Welsh Ministers	Regulations	<p>This power allows for flexibility in the future to keep up to date with the latest evidence. Setting interim targets for 2030 and 2040 by 2018 recognises that it is not possible now to accurately forecast up until</p>	Affirmative	<p>The provision is considered to be of special importance due to the technical nature, where the purpose is only fixed by enabling legislation.</p>

			2050 the range of factors which need to be taken into account regarding reducing Welsh greenhouse gas emissions. Some technologies or changes in plant need a long lead in time and some behaviours take time to change.		
Section 31(1)	Welsh Ministers	Regulations	This power allows for flexibility in the future to keep up to date with the latest evidence. Setting carbon budgets in advance recognises that it is not possible now to accurately forecast up until 2050 the range of factors which need to be taken into account regarding reducing Welsh greenhouse gas emissions. Some technologies or changes in plant	Affirmative	The provision is considered to be of special importance due to the technical nature, where the purpose is only fixed by enabling legislation.

			need a long lead in time and some behaviours take time to change.		
Section 33(2)	Welsh Ministers	Regulations	This power allows for flexibility in the future. Certain businesses in Wales participate in the European Union Emissions Trading Scheme. It is possible that firms in Wales may participate in other such trading schemes. If the net Welsh emissions account is to take account of the units traded within such schemes, it will be necessary to define the terms by which this occurs.	Affirmative	The provision is considered to be of special importance due to the technical nature, where the purpose is only fixed by enabling legislation.
Section 33(3)	Welsh Ministers	Regulations	This power allows for flexibility in the future to take into account future European and international arrangements	Affirmative	The provision is considered to be of special importance due to the technical nature, where the purpose is only fixed by enabling legislation.

Section 35(1)	Welsh Ministers	Regulations	This power allows for flexibility in the future to take into account international aviation and international shipping emissions to the Welsh emissions account particularly if a European or international agreement makes such a change necessary in the future.	Affirmative	The provision is considered to be of special importance due to the technical nature, where the purpose is only fixed by enabling legislation.
Section 36(1)	Welsh Ministers	Regulations	This power allows for flexibility in the future for defining what “carbon units” are in line with wider practice.	Affirmative	The provision is considered to be of special importance due to the technical nature, where the purpose is only fixed by enabling legislation.
Section 36(2)	Welsh Ministers	Regulations	This power allows for flexibility in the future as it may be necessary to create a scheme to monitor the use of carbon units. The trading of units across borders can be complicated	Affirmative	The provision is considered to be of special importance due to the technical nature, where the purpose is only fixed by enabling legislation.

			and it is not yet known whether such a scheme is necessary. However, if it does become necessary, these provisions allow such a scheme to be created.		
Section 37(2)	Welsh Ministers	Regulations	This power allows for flexibility in the future to keep up to date with the latest climate science, particularly as the Bill framework is designed to be long-term. As climate change science is an evolving science, it may become necessary in the future to add new gases to the list of those covered by the targets in the Bill in line with international reporting.	Affirmative	The provision is considered to be of special importance due to the technical nature, where the purpose is only fixed by enabling legislation.
Section 38(3)	Welsh Ministers	Regulations	This power allows for flexibility in the	Affirmative	The provision is considered to be of special importance due to the technical

			<p>future to keep up to date with the latest climate science, particularly as the Bill framework is designed to be long-term. If a new greenhouse gas is added under section 37, a baseline year will need to be designated, alongside the quantity of emissions for that year.</p>		<p>nature, where the purpose is only fixed by enabling legislation.</p>
Section 44(1)(a)	Welsh Ministers	Regulations	<p>This power enables the Welsh Ministers to establish a Wales specific advisory body for the purpose of exercising the advisory functions set out in Part 2 the Bill. This provides the Welsh Ministers with options to determine how the functions under Part 2 should be best delivered either by</p>	Affirmative	<p>The provision is considered to be of special importance as this provision allows for the creation of a new public body and the substance relating to the body will be set out in subordinate legislation.</p>

			the UK Climate Change Committee, a designated person or by a new body,		
Section 44(1)(b)	Welsh Ministers	Regulations	This power allows for flexibility in the future as to which body or person carries out advisory functions under this Bill, particularly as the Bill framework is designed to be long-term. It will enable the functions to be carried out by an appropriate body.	Negative	The provision would allow a body to be defined as an “advisory body” which would combine provisions under other powers.
Section 44(4)	Welsh Ministers	Regulations	The power allows for flexibility in the future to set the governance arrangements of the new advisory body. This will enable the appropriate governance procedures are appropriate for the body, where this is required. The power may be used to ensure that the	Affirmative	The provision is considered to be of special importance as this provision provides the substance relating to the creation of a new body, which will be set out in subordinate legislation

			numbers of the body are appropriate and that it contains an appropriate range of expertise.		
Section 44(5)	Welsh Ministers	Regulations	This power allows for flexibility in the future to allow Welsh Ministers to give directions to the advisory body in relation to matters listed in 44(4). This would enable the Welsh Ministers to ensure that the body was functionally optimally including ensuring that the required range of experience and expertise is represented within the body.	Affirmative	The provision is considered to be of special importance as it relates to the provision of giving directions to the new body in relation to the governance arrangements of the body.
Section 44(6)	Welsh Ministers	Regulations	This power allows for flexibility in the future to allow any necessary incidental, consequential, transitional or savings provisions	Affirmative	The provision is considered to be of special importance as it relates to the creation of a new body..

			to ensure there are no conflicting provisions in other legislation.		
Section 52	Welsh Ministers	Regulations	This power allows for flexibility in the future to take into account future European and international agreements and arrangements relating “international carbon reporting practice”.	Negative	The provision is simply intended to ensure that the definition of “international carbon reporting practice” used in the Bill can be kept up to date and is therefore a technical change.
Part 3 – Charges for Carrier Bags					
Section 55(1)	Welsh Ministers	Regulations	This provision provides that the Welsh Ministers may, by regulations, require sellers to charge for the supply of carrier bags. The regulations can make provision for the matters set out in sections 55-63. It is appropriate for	Affirmative	Affirmative procedure required because this provision will enable the Welsh Ministers to impose a financial burden on the public in the form of a minimum charge for carrier bags.

			these to be delegated powers to the Welsh Ministers as the regulations provide more flexibility.		
Part 4 – Collection and Disposal of Waste					
Section 65 [inserts new section 45AA(6) into the Environmental Protection Act 1990	Welsh Ministers	Regulations	The power permits the specification of technical requirements affecting waste producers and collectors, in relation to the separation and keeping separate, of specified waste materials. Such requirements are detailed and subject to change from time to time, and are therefore appropriate to be set out in regulations rather than on the face of the Bill.	Negative	Assembly negative procedure is required because these regulations will contain material that is relatively minor or technical in relation to the overall legislative scheme, and will need to be updated from time to time.
Section 65	Welsh	Regulations	This power relates	Negative	Assembly negative procedure is

<p>inserts new section 45AA(7) into the Environmental Protection Act 1990</p>	<p>Ministers</p>		<p>to the power in subsection (6), and permits the Welsh Ministers to specify the circumstances under which a separation requirement under subsection (6), is applicable. Provisions under this power will contain significant detail and are therefore more appropriately contained in regulations rather than on the face of the Bill</p>		<p>required because these regulations will contain material that is relatively minor or technical in relation to the overall legislative scheme, and will need to be updated from time to time.</p>
<p>Section 65 inserts new section 45AA(10)(a) into the Environmental Protection Act 1990</p>	<p>Welsh Ministers</p>	<p>Regulations</p>	<p>Power to specify exceptions to the duties contained in subsections (1) and (2). Provisions made under this power will contain significant amounts of detail, and will need to be varied from time to time, to take account of</p>	<p>Affirmative</p>	<p>Assembly affirmative procedure required because this is a power to substantively amend primary legislation.</p>

			different cases and changing circumstances. It is therefore appropriate for these matters to be dealt with in regulations, rather than on the face of the Bill		
Section 65 inserts new section 45AA(10)(b) into the Environmental Protection Act 1990	Welsh Ministers	Regulations	Power to make subsection (4) of section 45AA, apply subject to exceptions in addition to those specified in subsection (5). Provisions made under this power will contain detail, and may need to be varied from time to time to take account of changing circumstances. These provisions would therefore be appropriate to be contained in regulations, rather than on the face of	Affirmative	Assembly affirmative procedure required because this is a power to substantively amend primary legislation.

			the Bill.		
Section 66 inserts new section 34D(6)(a) into the Environmental Protection Act 1990:	Welsh Ministers	Regulations	Power to limit the application of subsection (1) in specified circumstances. Appropriate for regulations because flexibility is required to make and vary such limitations, to adapt to changing circumstances, and to allow for different cases.	Affirmative	Assembly affirmative procedure required because this is a power to substantively amend primary legislation.
Section 66 inserts new section 34D(6)(b) into the Environmental Protection Act 1990:	Welsh Ministers	Regulations	Power to make subsection (1) of section 34D, apply subject to exceptions in addition to those specified in subsection (2). Provisions made under this power will contain detail, and may need to be varied from time to time to take account of changing circumstances and would therefore be	Affirmative	Assembly affirmative procedure required because this is a power to substantively amend primary legislation.

			appropriate to be contained in regulations, rather than on the face of the Bill		
Section 66 inserts new section 34D(6)(c) into the Environmental Protection Act 1990:	Welsh Ministers	Regulations	Power to amend the definition of “food waste” in subsection (5). Flexibility concerning the definition of food waste, is required in order to adapt the legislation to changing circumstances in relation to production and management of food waste, by changing the definition from time to time. This power is therefore appropriate for regulations.	Affirmative	Assembly affirmative procedure required because this is a power to substantively amend primary legislation.
Section 67 inserts new section 9A(1) into the Waste (Wales) Measure	Welsh Ministers	Regulations	Power to make provision for and in connection with prohibiting or regulating the incineration of	Affirmative	Assembly affirmative procedure required. Although these regulations are expected to contain technical detail, the power in the new section 9A(1) is broad, and it is considered that the Assembly may wish to scrutinise its

2010:			<p>specified types of waste. These provisions will need to cover a wide range of circumstances, and contain a level of detail which could not practicably be accommodated on the face of the Bill. They will also need to be changed from time to time, in order to adapt to changing circumstances. It is therefore appropriate for these provisions to be contained in regulations.</p>		<p>proposed use. The power also mirrors existing powers in section 9 of the Waste (Wales) Measure, in relation to landfill, and which were themselves considered suitable for affirmative procedure</p>
-------	--	--	---	--	---

Part 5 – Fisheries for Shellfish

Section 72 inserts section 5A into the Sea Fisheries (Shellfish) Act 1967	Welsh Ministers	This provision affects an existing power within section 1 of the Sea Fisheries (Shellfish) Act 1967 to make	Under section 1 of the Sea Fisheries (Shellfish) Act 1967 the Welsh Ministers have an existing power to make an Order for the establishment or	The existing power in section 1 of the 1967 Act is subject to negative resolution procedure (by virtue of section 20 of the 1967 Act).	The new power simply adjusts the way in which an existing power to make subordinate legislation is to be exercised. The existing power is subject to negative resolution.
---	-----------------	---	--	--	---

		an Order	<p>improvement, and for the maintenance or regulation, of a shellfishery. The new section 5A (to be inserted into the 1967 Act) requires that the Welsh Ministers must ensure that an Order made under section 1 includes any provisions considered appropriate to prevent harm to any European Marine Site or to otherwise protect the marine environment. As each site will have its own environmental factors it is not possible to make provision for each eventuality on the face of the Bill. Each application for a shellfishery Order will need to be evaluated on a case</p>		
--	--	----------	---	--	--

			by case basis and appropriate provision for that particular site will need to be included in the Shellfishery Order.		
Section 74(2) inserts section 5(E) into the Sea Fisheries (Shellfish) Act 1967	Welsh Ministers	Order	The new section 5E provides that, in certain circumstances, the Welsh Ministers may vary or revoke Shellfishery Orders, made under section 1 of the 1967 Act, in order to protect a European marine site, but it is not appropriate to put on the face of the Bill, as each circumstance will need to be evaluated on a case by case basis.	Negative	This power is a relatively minor power (in that it is anticipated that it will very rarely be used) in the overall legislative regime. It may also be necessary to legislate quickly in order to ensure that the Welsh Ministers are able to comply with their obligations under the Habitats Directive (and avoid the possibility of infraction proceedings) and, equally, it is an area where the discretion of the Welsh Ministers over the content of the legislation is limited.
Part 6 – Marine Licensing					
Section 77 inserts section 72A(4) into	Welsh Ministers	Regulations	The provision enables Welsh Ministers to set fees	Negative	It will be necessary to update the subject matter of the regulations (i.e. the level of fees, in line with inflation, new

<p>the Marine and Coastal Access Act 2009</p>			<p>through Regulations. The fees relate to monitoring an activity authorised by a marine licence; assessing and interpreting the results of such monitoring and dealing with applications for variation, suspension, revocation or transfer of a marine licence. The Regulations may provide for different fees for different cases.</p> <p>The setting of fees could not practicably be accommodated on the face of the Bill as they will be subject to review. Reviews will take place as necessary, possibly annually. Whilst not a statutory</p>		<p>procedures etc.) on a regular basis.</p> <p>These powers supplement the existing power to set fees for marine licence applications set out at section 67 (2) of the Marine and Coastal Access Act 2009 (MCAA). It is anticipated that the existing Fees Regulations, made pursuant to section 67 (2) of the MCAA, will be updated by the Welsh Ministers, using the existing Regulation making powers at section 67 (2) of the MCAA alongside the new Regulation making powers contained in the Bill. The intention is, so far as possible, to set out all marine licensing fees in one SI. Fees set under section 67 (2) adopt the negative procedure pursuant to section 316 (8) of the MCAA. Accordingly, it is considered appropriate that the negative procedure should be adopted, for consistency and given the need for regular review.</p>
---	--	--	--	--	--

			requirement, it is intended that each review will be subject to public consultation if fee changes are proposed.		
Section 78 inserts section 107A (3) into the Marine and Coastal Access Act 2009	Welsh Ministers	Regulations	The section provides that the Welsh Ministers may require a person to pay a deposit on account of a fee. The amount of the deposit is to be determined by or in accordance with regulations. The setting of deposits could not practicably be accommodated on the face of the Bill as they will be subject to review.	Negative	It may be necessary to update the subject matter of the regulations (i.e. the level of deposits, in line with inflation, new procedures etc.) on a regular basis. As described above, the intention is, so far as possible, to set out marine licensing fees and deposits in one SI. Fees set under section 67 (2) of the MCAA and section 77 of the Bill adopt the negative procedure. Accordingly, it is considered appropriate that the negative procedure should be adopted for consistency and given the need for regular review.
Section 78 inserts section 107B (5) into the Marine and Coastal Access Act 2009	Welsh Ministers	Regulations	The section provides that the Welsh Ministers may by regulations make provision about how and when a fee or	Negative	As described above, the intention is, so far as possible, to set out marine licensing fees, deposits and manner of payments in one SI. Fees set under section 67 (2) of the MCAA and section 77 of the Bill adopt the negative procedure. Accordingly, it is considered

			<p>deposit is to be paid.</p> <p>The procedure for payments could not practicably be accommodated on the face of the Bill as they will be subject to review.</p>		<p>appropriate that the negative procedure should be adopted for consistency and given the need for regular review.</p>
<p>Section 79 inserts section 108 (2A) into the Marine and Coastal Access Act 2009</p>	<p>Welsh Ministers</p>	<p>Regulations</p>	<p>The provision to be inserted into section 108 of the MCAA and provides that the Welsh Ministers must by regulations make provision for any person to whom a notice is issued under section 72A(7) or 107(A)(4) to appeal against that notice.</p> <p>We are seeking consistency with the existing notice appeals powers under section 108 and we want to avoid fixing the appeals mechanism</p>	<p>Affirmative</p>	<p>The new subordinate legislation making power is to be inserted into section 108 of the MCAA. Section 108 of the MCAA imposes a duty on Welsh Ministers to make, through regulations, provision for any person to appeal against certain notices. The notices covered by section 108 of the MCAA include notices to suspend vary or revoke a marine licence pursuant to section 72 of the MCAA. Section 72 of the MCAA notices are akin to the notices that may be issued under sections 72A(7) or 107(A)(4) that will be inserted into the MCAA by the Bill.</p> <p>Under section 316(6) and (7) of the MCAA regulations made by statutory instrument under section 108 of that Act are subject to the 'draft affirmative procedure'. Section 316(10)(c) of that Act provides that 'draft affirmative</p>

			for these new powers on the face of the Bill, given the flexibility we have for setting the appeals provisions for the rest of the regime.		<p>procedure' requires that a draft of the instrument be laid before, and approved by a resolution of, the National Assembly for Wales.</p> <p>The provision of an appropriate appeals mechanism is considered fundamental to the rights of the licensee (the imposition of a notice could prevent an operator from carrying out its economic activity) and it is therefore appropriate that this level of scrutiny is afforded to the making of these provisions.</p> <p>The intention is, so far as possible, is to ensure that all notice appeals provisions under part 4 of the MCAA are consistent and are set in one SI. Accordingly, it is considered appropriate that affirmative procedure is adopted for consistency.</p>
Part 7 – Miscellaneous					
Section 81 inserts sections 26B(3) into the Flood and Water Management Act 2010	Welsh Ministers	Regulations	The Welsh Ministers will want to regularly review the membership of the Committee and its functions especially in light of the impending reorganisation of local authorities.	Negative	The content of the Regulations will be administrative in nature and relatively minor in the overall legislative scheme to reflect the nature of the planned reviews of Committee and its functions.

Section 81 inserts sections 26C(3) into the Flood and Water Management Act 2010	Welsh Ministers	Regulations	The Welsh Ministers will want to regularly review the membership of the Committee, especially in light of the impending reorganisation of local authorities.	Negative	The content of the Regulations will be administrative in nature and relatively minor in the overall legislative scheme to reflect the nature of the planned reviews of Committee membership.
Section 81 inserts sections 26D(1) into the Flood and Water Management Act 2010	Welsh Ministers	Regulations	The Welsh Ministers will wish to review any payment or allowances provided for the Committee Chair. The delegated power therefore provides the flexibility to undertake these reviews.	Negative	The content of the Regulations will be administrative in nature and relatively minor in the overall legislative scheme to reflect the nature of the planned reviews of the Committee and potential payment/allowances.
Section 81 inserts sections 26D(2) into the Flood and Water Management Act 2010	Welsh Ministers	Regulations	The Welsh Ministers will wish to review any payment or allowances provided for Committee members. The delegated power therefore provides the flexibility to	Negative	The content of the Regulations will be administrative in nature and relatively minor in the overall legislative scheme to reflect the nature of the planned reviews of the Committee and potential payment/allowances.

			undertake these reviews.		
Section 81 inserts sections 26D(3) into the Flood and Water Management Act 2010	Welsh Ministers	Regulations	The Welsh Ministers will also wish to review any payment or allowances provided for the Committee Chair or members. The delegated power therefore provides the flexibility to undertake these reviews.	Negative	The content of the Regulations will be administrative in nature and relatively minor in the overall legislative scheme to reflect the nature of the planned reviews of Committee and potential payment/allowances.
Section 83 inserts subsections 5A-D in section 37 of the Land Drainage Act 1991. .	Welsh Ministers	Regulations	This will enable the Welsh Ministers to set out the way in which valuation of non-agricultural land is calculated for the purpose of drainage expenses.	Affirmative	These Regulations will enable the Welsh Ministers to set out the methodology that will be applied to assess the value of non-agricultural land in an internal drainage district. The powers, whilst subject specific so contain wide powers to make different provision for different cases, including different provision in relation to different circumstances or descriptions of land and to make such incidental, supplementary, consequential, transitional or saving provisions as the Welsh Ministers consider appropriate.
Section 84(2)	Welsh	Regulations	The Welsh Ministers	Negative	The content of the Regulations will be

inserts section 75(7A) into the Local Government Finance Act 1988	Ministers		may wish to include provisions for appeals to be made to them in relation to special levies issued by Natural Resources Wales to meet expenses incurred in the exercise of functions related to land drainage.		administrative in nature and relatively minor in the overall legislative scheme.
Section 88(3)	Welsh Ministers	Orders	This provides the Welsh Ministers with the flexibility to commence Part 3, Part 5 and section 56 and 59 at the appropriate time.	No procedure.	These are commencement orders that would require no procedure.

Table 4: Summary of powers to make other instruments

Section	Power conferred on	Form	Appropriateness for delegated power	Procedure	Reason for procedure
Part 1 - Sustainable Management of Natural Resources					
Section 12(1)	Welsh Ministers	Directions	Provides the Welsh Ministers with the power to direct a public body as listed in section 10 to take steps to implement an area statement. This is appropriate as a direction is specific to the practical implementation of the Bill. It deals with circumstances that cannot be foreseen i.e. until the area statements are produced.	No procedure	Directions will be in writing and not in the form of a statutory instrument and therefore there is no Assembly procedure applied.
Part 5 – Fisheries for Shellfish					
Section 71	Welsh Ministers	Power to specify form and manner in which an application for	At present, section 1(2) of the Sea Fisheries (Shellfish) Act 1967 enables the Welsh Ministers	No procedure	The form and manner in which an application for a shellfishery Order will be specified by the Welsh Ministers in relation to each proposed fishery site and will not be in the form of a statutory instrument and therefore

		a Shellfishery Order under section 1 of the Sea Fisheries (Shellfish) Act 1967 must be made	to specify in regulations the form and manner in which an application for a shellfishery Order must be made. Given the very diverse range of factors that can be relevant to such applications more flexibility is required and, consequently, the new subsection 1(2A) of the 1967 Act will enable the Welsh Ministers to specify the form and manner in which such an application must be made without the need to make a statutory instrument.		there is no Assembly procedure applied.
Section 73	Welsh Ministers	Notice	This provision (set out in the new section 5B inserted into the Sea Fisheries (Shellfish) Act 1967) provides that, in certain	No Assembly procedure	The Site Protection Notice will not be in the form of a statutory instrument and therefore there is no Assembly procedure applied. However, section 5B (inserted into the Sea Fisheries (Shellfish) Act 1967) provides that the power is only exercisable where it appears to the Welsh Ministers that harm to

			circumstances, the Welsh Ministers may serve a Site Protection Notice on the Grantee of a Shellfishery (created under section 1 of the 1967 Act), requiring them to take action or operate their fishery in the manner specified in the Notice.		a European marine site has occurred, or is likely to occur, as a result of any shellfishery activity. The Site Protection Notice must be in writing, state why it is being made and set out the steps which must be taken and specify by when those steps must be taken. The Welsh Ministers must also have first consulted with the Grantees, unless urgent action is needed. The Welsh Ministers must publish every such notice in such manner as they consider appropriate to bring it to the attention of persons likely to be affected by it.
Schedule 1 – Charges for Carrier Bags: Civil Sanctions					
Paragraph 17	Welsh Ministers	Directions	Provides the Welsh Ministers with the power to direct the administrator in certain circumstances in relation to a breach of the carrier bag regulations.	No procedure but paragraph 17(5) requires the Welsh Ministers to lay a copy of the directions before the Assembly.	The directions will be in writing and the Welsh Ministers are required under paragraph 17(4) to consult with the administrator and other persons considered appropriate before it is laid before the Assembly. Under paragraph 17(6) it is the responsibility of the administrator to bring the direction to the attention of those likely to be affected by it.

Table 5: Summary of powers to issue guidance

Section	Power conferred on	Form	Appropriateness for delegated power	Procedure	Reason for procedure
Part 1 - Sustainable Management of Natural Resources					
Section 13(1)	Welsh Ministers	Guidance	Provides the Welsh Ministers with the power to issue guidance about steps that should be taken to address matters set out in an area statement. A public body must have regard to it in the exercise of its functions. This power is appropriate as it provides the Welsh Ministers with the flexibility to provide more detail about area statements in the form of guidance.	N/a	Guidance will be issued by the Welsh Ministers and is not subject to an Assembly procedure.
Part 2 – Climate Change					
Section 47(1)	Welsh Ministers	Guidance	Provides the Welsh Ministers with the power to issue guidance to	N/a	Guidance will be issued by the Welsh Ministers and is not subject to an Assembly procedure.

			<p>advisory body in relation to the provisions under Part 2 of the Bill. The advisory body must have regard to the guidance in the exercise of its functions. This power is appropriate as it provides the Welsh Ministers with the ability to provide more detail in guidance.</p>		
Part 4 – Collection and Disposal of Waste					
<p>Section 65: inserts a new section 45AB into the Environmental Protection Act 1990 (EPA 1990)</p>	<p>Welsh Ministers</p>	<p>Code of Practice</p>	<p>New section 45AB(1) EPA 1990 provides the Welsh Ministers with power to issue one or more codes of practice to provide practical guidance in relation to compliance with the requirements of section 45AA EPA 1990. Such a code will be admissible in evidence in court proceedings and must be taken into</p>		<p>The Code of Practice will be issued by the Welsh Ministers. New section 45AB(4)(b) EPA 1990 requires the Welsh Ministers to lay a copy of the Code of Practice before the Assembly</p>

			account by a court where relevant. This power is appropriate because a wide range of individuals and bodies will fall within the requirements of section 45AA, and it enables the Welsh Ministers to issue detailed practical guidance on compliance, which takes account of the different roles and circumstances of the individuals and bodies affected.		
Schedule 1 – Charges for Carrier Bags: Civil Sanctions					
Paragraph 13	Welsh Ministers	Guidance	Provides that administrators who have the power to impose civil sanctions as conferred on them by Welsh Ministers must publish guidance about how they will exercise the civil sanctioning powers.	N/a	Guidance will be issued by the Welsh Ministers and is not subject to an Assembly procedure.

PART 2

Chapter 6: Regulatory Impact Assessment

A regulatory impact assessment has been completed in accordance with Standing Order 26.6 (vi) for the proposed Bill as follows. There are no specific provisions in the Bill which charge expenditure on the Welsh Consolidated Fund.

Introduction

1. The Regulatory Impact Assessment (RIA) is an integral part of the Welsh Government's policy-making and legislative development process. For legislative proposals, a RIA is required to provide best estimates of:
 - Gross administrative, compliance and other costs to which the provisions of the Bill would give rise;
 - Timescales over which the costs would be expected; and
 - On whom the costs will fall.
2. The costs and benefits for each of the provisions set out in this RIA have been assessed relative to a baseline "business as usual" scenario that reflects the current situation and planned organisational changes, including:
 - The ongoing process of structuring NRW operations following its formation in April 2013; and,
 - Legislative requirements and proposals preceding the development of the Bill, in particular those in the Well-being of Future Generations (Wales) Act 2015 (which were subject to a separate RIA).
3. The RIA has been informed by work undertaken by independent consultants (Eftec, AEA Ricardo and Eunomia). The consultants' work included an assessment of the potential costs and benefits for implementing the legislative proposals, including who is affected and in what way, and the potential resource implications for NRW, other relevant public bodies and the private sector.
4. A separate analysis was produced to estimate the likely costs and benefits of the biodiversity and resilience of ecosystems duty provisions.
5. The RIA developed for the Environment (Wales) Bill ("the Bill") has been structured on the basis of the substantial parts of the Bill, with individual analysis and assessments produced for the respective provisions in each part:
 - Part 1: Sustainable Management of Natural Resources
 - Part 2: Climate change
 - Part 3: Charges for Carrier Bags
 - Part 4: Collection and Disposal of Waste
 - Part 5: Fisheries for Shellfish
 - Part 6: Marine Licensing
 - Part 7: Miscellaneous and General
6. A summary of the costs and benefits associated with each part and the Bill as a whole is presented on pages 298-309.

Part 1: Sustainable Management of Natural Resources

Overview

7. The Bill is intended to introduce a joined-up legislative approach to enable Wales' natural resources to be managed in a more proactive and sustainable manner. This section focuses on Part 1 of the Bill in relation to the Sustainable Management of Natural Resources.
8. The implementation costs and benefits associated with provisions set out in Part 1, particularly those in relation to the development of area statements, will largely be determined by the operational approach NRW chooses to adopt, beyond existing transition work already underway to integrate its regulatory functions where this is possible under existing legislation. To ensure that the most cost-effective implementation approach is selected, NRW and Welsh Government are building evidence, identifying good practice operational methods through area-trials as well as reviewing current delivery models to take advantage of opportunities for consolidating and streamlining planning and operational functions.
9. Given that the implementation costs will be determined by NRW's operational approach, this section of the RIA puts forward illustrative options for implementation covering possible operational approaches for area statement development. The provisions have however been designed to enable NRW to select the most cost-effective approach to deliver the area statements and to allow for flexibility in managing cost implications going forward.

Part 1: Summary of Provisions

10. The Bill provides NRW with a clear general purpose which brings NRW's current purpose into line with the provisions set out in Part 1, and specifically the definitions of natural resources and the sustainable management of natural resources. The purpose here is to provide clarity with respect to NRW's purpose and its role in delivering the sustainable management of natural resources. These provisions embed the principles into the decision-making of the organisation to complement the overarching framework and requirements of the Well-being of Future Generations (Wales) Act 2015.
11. To support the sustainable management of natural resources, the Bill sets out a clear framework of provisions for evidence and delivery. At a national level, this framework comprises of the publication of a State of Natural Resources Report (SoNaRR) and a national natural resources policy (NNRP), which is supported, at the local level, by area statements.
12. SoNaRR will provide the national evidence base to help inform the confirmation of key priorities, commitments and opportunities for the sustainable management of natural resources in the NNRP.

13. Area statements will summarise local evidence on the risks and opportunities in relation to the natural resources in an area and assist in providing evidence for the development of the SoNaRR. Over time, this will provide a measure of the progress being made towards the sustainable management of our natural resources. The intention is that NRW will be able to use area statements to rationalise plans, programmes or strategies where this is consistent with specific statutory duties. This will allow NRW to integrate, simplify and improve efficiency in delivering its functions.
14. The need for area statements across Wales reflects the recognition, as provided for in the Well-being of Future Generations (Wales) Act 2015, that tackling overarching challenges and identifying sustainable solutions requires an approach that takes into account the local context. In addition, public bodies must consider how acting in collaboration with other bodies can assist in the delivery of long-term objectives.
15. SoNaRR will be published by NRW on a five year cycle, the only exception to which will be the second report that will be published four years after the first in order to bring it in line with the ordinary Assembly election cycle provided for under the Government of Wales Act 2006. After the publication of the first NNRP by the Welsh Ministers, it may be reviewed at any time. It must be reviewed, however, after either an ordinary or extraordinary general election and amended as appropriate in light of that review.
16. In producing area statements, NRW will also look to identify opportunities for the implementation of the priorities and opportunities identified by Welsh Ministers in the NNRP. NRW will be responsible for the identification of the scale of the area best suited for this purpose.
17. Other public bodies will also be required to provide information and assistance to NRW if requested, for the preparation and production of SoNaRR and area statements. The public bodies encompassed by this requirement are consistent with the public bodies outlined in the Well-being of Future Generations (Wales) Act 2015.

Part 1: Structure of RIA

18. The RIA for Part 1 of the Bill is structured as follows:
 - Quantitative and Qualitative Analysis
 - Options analysis
 - Assumptions, Risks and Sensitivity analysis
 - Baseline and overview of impacts
 - Costs
 - Benefits
 - Summary of Costs
 - Summary of Benefits

Part 1: Quantitative and Qualitative Analysis

Qualitative mapping of baseline and impacts

19. Qualitative information was gathered in the initial stages and was used to map the actions and associated impacts of the proposals under Part 1 of the Bill on NRW and other stakeholders. An analytical framework for the RIA was considered alongside the main processes and resources required to undertake the planning, delivery and reporting for the sustainable management of natural resources in Wales. The assessment includes input from both NRW and other public bodies.
20. For the proposals contained in Part 1, the main impacts relate to the resource costs associated with changes in the operation of NRW and other public sector bodies. Specifically, the implications of each proposal on organisational staff, management and skills have been considered, relative to the baseline.
21. Consideration of the potential wider implications of the Part 1 provisions in relation to potential environmental, social and economic impacts on non-public sector stakeholders has been assessed using the sustainable development framework set out in supplementary guidance to The Green Book (HMG, 2013)⁴³.

Quantitative mapping of priority impacts

22. Following the qualitative mapping of impacts, the assessment progressed to quantify the significant impacts of each of the potential options (via the three delivery options explained below), for implementing the proposals in the Bill. The methodology used - including discounting, time horizon and use of the logic model - is consistent with Government guidance⁴⁴.
23. In order to estimate the resource costs of activities to NRW, the Standard Cost Model method of providing an indicative measurement of administrative burdens can be applied for each of the obligations on NRW; e.g. for staffing costs:

$$\text{Activity cost} = \text{price} \times \text{quantity} = (\text{wage} \times \text{time}) \times (\text{population} \times \text{frequency})$$

24. Costs and benefits have been broken down by organisation and are provided in gross and net present value terms. Ranges have been produced for costs and benefits where there is uncertainty (e.g. number of staff involved). A sense check of the figures was applied by corroborating them with stakeholders during workshop sessions (outlined below).

⁴³ *The principles in the Green Book – Appraisal and Evaluation in Central Government (HMT, 2011) and the Magenta Book – Guidance notes for policy evaluation and analysis (HMT, 2011), <https://www.gov.uk/government/publications/the-green-book-appraisal-and-evaluation-in-central-government>*

⁴⁴ *The principles in the Green Book – Appraisal and Evaluation in Central Government (HMT, 2011) and the Magenta Book – Guidance notes for policy evaluation and analysis (HMT, 2011)*

Strategic Environment Assessment (SEA)

25. The main purpose of Strategic Environment Assessment (SEA) is to ensure that the likely significant effects on the environment and the reasonable alternatives of the proposed plan or programme, are identified and considered throughout the plan preparation stage. This is a fundamental aspect of any natural resource planning process, and therefore it makes sense not to view SEA as a separate process, but as one that is fully integrated and in keeping with the way natural resource management is carried out. For NNRP and area statements, it is likely that SEA will be required. The SEA process is well-aligned with the approach needed to develop the area statements and NNRP. The evidence and analysis required, the development of SEA objectives, impact assessments and alternatives will be very similar. As such much of this work can be integrated into the development of the NNRP and area statements as a matter of course.
26. To ensure that the SEA Directive requirements are covered in terms of providing for a high level protection of the environment, it is envisaged that SEA expertise will initially need to be brought in to work with the teams preparing the NNRP and area statements to ensure the SEA process is followed in order to produce the Environmental Report required by the Directive.

Timescales over which costs fall

27. For the purposes of the RIA, a 10 year period (2016-17 to 2025-26) of assessment of impact has been applied equally to each of the provisions. The selection of a 10 year assessment period enables a comprehensive embedding of the new approaches into NRW, including different iterations of the products of the Bill as described above.

Stakeholder Engagement

28. The analysis was informed by stakeholder engagement, including two project workshops and other direct engagement with specific stakeholders.
29. The first workshop was held on 2 July 2014 with NRW staff and scoped a wide range of implications of the proposals in Part 1 of the Bill on their operations. The outputs of these workshops are reflected in the qualitative analysis of impacts (outlined below).
30. The second project workshop was a multi-stakeholder event, on 12 September 2014, which discussed a draft assessment of the impacts of the Bill. The intention of this workshop was to explore with the relevant organisations the impacts of the implementation of the Bill. Attendees at this workshop included representatives of:
 - Campaign for the Protection of Rural Wales
 - CBI Wales
 - CONFOR
 - CLA
 - Climate Change Commission Wales
 - Dŵr Cymru

- Federation of Small Businesses
- Flintshire County Council Powys County Council
- FUW
- NFU Cymru
- Pembrokeshire National Park Authority
- RSPB Wye and Usk Foundation

31. In addition to the two workshops, questionnaires and telephone interviews were conducted with public bodies, the private sector and third sector.

Part 1: Options Analysis

32. As set out earlier, the costs and benefits of implementing the Part 1 provisions will vary according to how the requirements are delivered (via the options outlined below). Impacts (costs and benefits) of the illustrative options have therefore been appraised, relative to the baseline.
33. The analysis of the impacts of these provisions begins with an analysis of Option 1 'Do Nothing'. This is the situation in which the Bill is not introduced. This is used as contextual information against which the costs and benefits of the remaining three options can be compared. Under the costs and benefits section, the costs and benefits of each of these options, relative to this baseline, are then set out under each of the proposals contained in Part 1 of the Bill.
34. In summary, the options as they are presented provide a variation in the depth of approach. They provide illustrative examples of how the area statements might be delivered according to the level of the detail provided. The Bill is introducing an adaptive management approach, where "learning by doing" will inform the selection of the most cost-effective approach. For the purposes of the RIA, the impacts of the Bill have been assessed over a period of 10 years. Current activity by NRW in rolling out area based trials represents a similar approach to that illustrated under Option 3. The approach being introduced by the Bill will be developed under the preferred option (Option 2) which will build on the activity being undertaken under Option 3, over the short to medium term i.e. within 10 years. On that basis, Option 4 is not the preferred option because that would look to achieve full delivery within the 10 year timescale over which this RIA addresses. The ultimate aim is for NRW to fully implement area statements that have a detailed assessment of all the risks and opportunities in a local area including those priorities identified in NNRP (Option 4) over the long term i.e. beyond 10 years.
35. For the purposes of this RIA, Option 2 is the most viable option within the 10 year period. Option 3 represents a similar example of what is currently being undertaken and Option 4 represents the overall objectives of Part 1 of the Bill, beyond 10 years. Therefore, Options 2 and 3 present transitional approaches to the long term aim provided in Option 4.
36. The options are as follows:
- **Option 1: Do nothing** – associated with status quo or business as usual. In other words, no Bill is introduced. This is the baseline against which the relative costs and benefits of the alternative options are assessed. This baseline includes costs associated with NRW's ongoing delivery and the work underway to integrate its functions around its statutory purpose. The baseline also includes the requirements that flow in particular from the Well-being of Future Generations (Wales) Act 201545.

⁴⁵ Pg. 59 - <http://www.senedd.assembly.wales/mglIssueHistoryHome.aspx?Ild=10103>

- **Option 2: Delivery of area statements in a way which focuses on the priorities identified in the NNRP (preferred option)** – in this option, as well as summarising the key risks, the implementation of area statements focuses on the identification of opportunities to deliver on the priorities identified within the NNRP. This option balances overall resource costs to NRW with the realisation of benefits required under the Bill.

In practical terms, this means that NRW would be delivering area statements in a more focused and targeted way in the short to medium term i.e. up to 10 year period of assessment for the purposes of this RIA. It could also involve them trialling schemes such as Payments for Ecosystems Services. This approach may help NRW to achieve full implementation of area statements in the longer term i.e. beyond the 10 year period.

- **Option 3: Delivery of area statements across a smaller number of areas** - this option focuses on the identification of the opportunities that align with the key priorities in the NNRP and the detailed identification of the wider opportunities at a local level in only a small number of areas.

Implementation would be more focused on a small number of areas in Wales. As with Option 2, this would mean that in practice NRW would not implement area statements in the way envisaged under Option 4. This option is similar to current activity being undertaken by NRW through the area based trials (more detail provided further on).

- **Option 4: Full delivery of detailed area statements across Wales** – this option focuses on the identification of the opportunities that align with the key priorities in the NNRP and the detailed identification of the wider opportunities and key risks at a local level in all areas across Wales.

The practical effect of this option would be for NRW to fully implement area statements that have a detailed assessment of all the risks and opportunities in a local area including those priorities identified in NNRP, across Wales. Whilst this is the preferred approach for the Bill, in reality it would not be possible for NRW to deliver this option within the 10 year period and is therefore a longer-term option. It is envisaged that Option 2 would build on the experiences from the area based trials and enable NRW to transition towards meeting the aims of Option 4 in the longer term.

37. A number of assumptions have been made in relation to the development of these options, which are set out in paragraphs below. These assumptions allow for an analysis of differences between impacts depending on the type of delivery approach that is adopted. They are mainly assessed qualitatively, to consider key differences for delivering the key aspects/actions required under the Bill.

Part 1: Assumptions, Risks and Sensitivity Analysis

38. The Bill sets out the required statutory framework for the Sustainable Management of Natural Resources. However, as it does not specify all the parameters necessary to model the actions that will be required to implement it, the evidence presented in this RIA on the proposals in Part 1 relies on a range of assumptions and delivery scenarios in order to construct an illustrative view of the potential costs and benefits of the Bill.
39. It is difficult to assess the nature and scale of the impacts of the proposals in Part 1 of the Bill for individual organisations and to quantify these in cost terms. The organisations who took part in the research were therefore unable to establish an accurate baseline position in relation to their current actions and behaviours. As a result, a broad estimate of the likely costs associated with each of the variables of delivery has been provided for the purposes of this RIA.
40. However, under the options set out in this RIA, there are some key variables that influence the costs and benefits of delivering the proposals in Part 1 of the Bill. These are referred to as 'sensitivities', and have been constructed from the key determinants of variation in the impacts (i.e. costs and benefits) for each action. These could also be considered as sources of uncertainty. Stakeholder consultation (mainly through the second workshop held with NRW, other public bodies and private sector representatives) has been used to assess how costs/benefits might change according to their implementation.
41. In developing the options, assumptions have been made on how NRW may deliver its duty under the Bill to produce area statements. At a basic level the area statements will draw together current information and evidence on the risks to natural resources within an area. In addition, they will also look at the opportunities, including those which facilitate the delivery of the NNRP priorities as appropriate at a local level. NRW will however need to determine the best approach to deliver the requirements of the Bill. Assumptions have however been made for illustrative purposes, on the basis that in all cases NRW will seek to draw together existing information on the risks to natural resources. In order to look at the local opportunities three potential approaches could however be taken to deliver the area statements by:
 - a) Focusing on the identification of opportunities which deliver the key priorities in NNRP.
 - b) Fully identifying the local opportunities and alignment with key priorities in the NNRP in a small number of areas.
 - c) Fully identifying the local opportunities for implementation and alignment with the priorities identified in NNRP across all areas of Wales.
42. Further assumptions have also been made in relation to the timescale over which NRW may elect to deliver the area statements.
43. Not all sensitivities are relevant in all cases. For example, the variation in speed of implementation and extent of collaboration is unlikely to impact the costs and benefits relating to SoNaRR, but is likely to impact costs and benefits of the area

statements. Where these sensitivities do not impact on the actions required (and subsequent impacts) of each proposal, it is not relevant to construct options for delivery. The key 'sensitivities' and 'assumptions' are as follows:

- Number of area statements – the SoNaRR and the NNRP will inform area statements. Without these documents, therefore, it is difficult to predict the focus of area statements that will be produced by NRW. On that basis, this RIA makes assumptions about the potential focus of area statements in the form of three options in order to act as comparators.
- Preparation and production of NNRP will be the same or give rise to similar costs for each production. Under all three options for delivery presented in this RIA, the NNRP is a statutory requirement. It is not anticipated that the costs will fluctuate significantly enough to present an estimated range. There may be variations in the quality of a NNRP, which may in itself alter the costs (i.e. more research and follow up assessments) but these have not been included for the purposes of this assessment. It is also anticipated that the costs of producing the first NNRP may be higher than for the production of subsequent statements, given that new processes for coordinating and developing NNRP may be needed.
- The drawing together of known risks within all area statements from existing reports: it is anticipated that this will be done in all options and in doing so area statements offer a key opportunity to both streamline and simplify the information on the risks to natural resources in each area. This also complements the requirements that flow from the Well-being of Future Generations (Wales) Act 2015 as they impact upon NRW and link to the delivery of local well-being plans.
- Costs on NRW: it is anticipated that the costs involved in the preparation and production of SoNaRR and area statements will be managed within the current grant-in-aid provided to NRW by the Welsh Ministers.
- The timescale over which the Bill's requirements are implemented: a shorter timescale will impose greater costs on NRW and other stakeholders. Shorter and less flexible timescales are more likely to preclude obtaining synergies between area-based natural resources management actions (e.g. stakeholder consultations for different purposes) and therefore restrict achievement of efficiency gains.
- The extent of collaboration between NRW and other public bodies will determine the efficiency of some actions, such as data collation and area planning. For the purposes of this RIA, it has been assumed that the aim of the collaborative approach between NRW and other public bodies under the Environment (Wales) Bill integrates with the approach under the Well-being of Future Generations (Wales) Act 2015 – and that the impacts of this approach will be shared⁴⁶.

⁴⁶ Pg. 59 - <http://www.senedd.assembly.wales/mglIssueHistoryHome.aspx?Ild=10103>

- Extraordinary elections: an extraordinary election may impact on the review and any potential amendments of NNRP. The priorities and actions may be redefined depending on the outcome of an extraordinary election, which could lead to additional costs in addition to the review undertaken every Welsh Government term. In addition to revisions made to the NNRP, the area statements will also need to be reviewed in line with the revised NNRP. The preparation and production of SoNaRR will be unaffected by an extraordinary election, the report is a stand alone product that will be required on a five-yearly basis to make available information to assist the Welsh Ministers to set priorities for action at the national level.
 - Sustainability and Environment Assessment (SEA): it has been assumed that the processes in undertaking an SEA will be similar to those for the preparation and production of NNRP and area statements. The evidence and analysis required, the development of SEA objectives, impact assessments and alternatives will be very similar. As such much of this work can be integrated into the development of the NNRP and area statements as a matter of course.
 - Principles of sustainable management of natural resources: these principles are encapsulated in the delivery of the products outlined in the RIA. Therefore the practical application of the principles is being applied in tandem with the delivery of the other requirements contained in Part 1 of the Bill, namely SoNaRR, NNRP and area statements and the impacts have already been considered as part of the assessment of Part 1 of the Bill.
 - General purpose of NRW: the current purpose of NRW is being amended through the Bill, which will require NRW, in the exercise of its functions, to seek to achieve the sustainable management of natural resources. No direct cost impacts are anticipated given that this is provision clarifies NRW's existing purpose in terms of the sustainable management of natural resources principles and wider provisions contained in Part 1 of the Bill.
 - Land management agreements and experimental schemes: it has been assumed that NRW would be able to use these powers in the course of their regular activity but that it would cost no more or less to implement. It is predicted that the powers are more likely to be used where there are significant push or pull incentives for doing so, therefore, the powers will only be exercised where they are deemed cost effective.
44. In order to provide a better understanding of these risks and uncertainties included in this RIA, options analysis has been undertaken to test several sensitivities or key determinants of the estimated impacts (costs and benefits) of the proposals. This is included under the 'Costs' and 'Benefits' sections below, for each of the provisions contained in Part 1 of the Bill, and result in a range of estimated total costs but across a range of fairly low values, and so does not highlight any major sensitivities.

Part 1: Baseline and overview of impacts

45. This section describes the general baseline (or 'do nothing' option). Baseline issues specific to each proposal are further described in the relevant sections.
46. The current legislative framework of environmental statutory duties and regulatory functions has evolved gradually over many decades and has developed mostly in response to specific environmental problems. This approach to regulation has led to a complex mix of regulation that does not always work together. This approach does not require:
- Improving ecological resilience as a key focus for managing our natural resources and therefore does not provide for the long-term delivery of ecosystem services.
 - An integrated, proactive and holistic approach to decision-making, policy development monitoring and reporting.
 - A coherent iterative process connecting evidence, policy and implementation at the national and local scale based on an application of the ecosystem approach and addressing cumulative impacts on ecosystem resilience.
 - An adaptive management approach to decision-making, policy development and implementation.
47. The baseline provided in Option 1 includes not only the current legislative position, but also represents the current cultural and organisational changes either happening or likely to happen as a result of:
- The investment in the establishment and development of NRW as a single integrated delivery body for natural resource management in Wales. This investment has already occurred and therefore this must be regarded as part of the baseline, even though it remains ongoing work with some uncertainty over its outcomes (for example, organisational design and structures).
 - Changes being brought about by the Well-being of Future Generations (Wales) Act 2015⁴⁷.
48. As such the baseline is particularly complex due to ongoing processes of which the outcome is not yet known in detail.
49. NRW is currently undergoing a process of transformation; therefore, it is not possible to obtain evidence on the changing role and/or functions of NRW staff resource over this period. It has also not been possible to establish any objectives for the recruitment of staff either in terms of number or function. It is reasonable, however, to assume that any new staff functions will be focused on fulfilling the requirements of NRW duties and in line with the meeting of its statutory purpose. For example, NRW is currently organising staff into place-

⁴⁷ <http://www.senedd.assembly.wales/mglIssueHistoryHome.aspx?Ild=10103>

based teams, however, this would be without specific and committed resources or approaches in place to deliver a whole area-based approach.

50. An estimated 10-20% (max) of NRW staff plays a role in statutory planning processes – collating evidence, developing objectives, plan preparation and consultation – although this ranges between 5-100% of their time, including:
- The core staff within KSP (Knowledge Strategy Planning) department - provide input into River Basin Management Planning - gathering information from various specialist teams from across NRW – usually response focusses on environmental constraints - approximately 50 people.
 - The core staff within KSP that assist operational staff in preparing and inputting into local development plan consultations – again approximately 50 people.
 - Operational based environmental planners (i.e. flood risk managers) in the delivery of capital schemes. Existing processes follow specific approaches or require particular outcomes, and may be restrictive in terms of ability to deliver wider benefits.
 - SEA team – which provides central support across a number of internal and external plans
 - Technical support - providing specific data unique to specific plans (e.g. water resources) or common data for all statutory plans (e.g. habitats and species).
51. NRW is currently delivering three area trials in the Rhondda, Tawe and Dyfi river catchment areas. The purpose of the trials is to develop the approach to the management of natural resources in specific geographical areas as part of the core function of NRW. The trials are therefore a demonstration of how the new duties might be applied in practice, and importantly, are capturing learning along the way. The aim of the trials is to inform the delivery of the area statements, which will shape and lead the delivery of all NRW functions in the future.

Links between Environment (Wales) Bill and Well-being of Future Generations (Wales) Act 2015

52. The baseline also includes the Well-being of Future Generations (Wales) Act 2015 - this overlap has been considered carefully within this RIA to ensure the correct attribution of impacts across the two Bills. As is outlined in the 'Well-being of Future Generations (Wales) Act 2015 – Explanatory Memorandum' (2014)⁴⁸, the goal of that Bill is *“to ensure that sustainable development is embedded at the heart of named specific public authorities, and that those bodies work together in pursuit of long term well-being goals that improve the economic, social and environmental well-being of Wales”* (p. 3). The policy intentions include the following:
- To improve governance arrangements to improve the well-being and sustainable development of Wales.
 - To embed sustainable development within specified public authorities.
 - To support the change and safeguard the interests of future generations.
 - To reform integrated community planning.

⁴⁸ <http://www.senedd.assembly.wales/mglIssueHistoryHome.aspx?Ild=010103>

53. Together, both Bills provide the legal basis for the Welsh Government's commitment to drive sustainable development. They reinforce the overarching purpose of the public sector in Wales by strengthening, streamlining and clarifying key statutory processes. The following is a list of the key links between the Environment (Wales) Bill and Well-being of Future Generations (Wales) Act 2015:
- Providing a modern statutory approach to the sustainable management of natural resources by legislating for a more joined-up and proactive process to help to deliver well-being goals.
 - SoNaRR will provide NRW with an improved evidence base, feeding into the area statements – providing data at a local level. This will also contribute to evidence in the assessments of local well-being under the Well-being of Future Generations (Wales) Act 2015.
 - Area statements, as required under the Environment (Wales) Bill, can provide a consistent and transparent evidence base for the preparation of assessments for local well-being. The Environment (Wales) Bill makes an amendment to the Well-being of Future Generations (Wales) Act 2015, which requires some public bodies to take an area statement or statements into account when preparing a local well-being assessment.
 - Under the Well-being of Future Generations (Wales) Act 2015, NRW will be a statutory member of a Public Service Board (PSB), and will be able to draw on the evidence from their area statements for their contribution to developing the local well-being plan.
 - Under the Environment (Wales) Bill, some public bodies under the Well-being of Future Generations (Wales) Act 2015 may be asked to contribute information to inform the SoNaRR and the area statements.
 - The improved evidence base will also allow NRW, who will be represented on the Advisory Panel of the Future Generations Commissioner for Wales, to ensure that the sustainable management of our natural resources is understood and reflected in the work of the Commissioner, such as in the periodic Future Generations Report.

Part 1: Costs

54. The following section provides an assessment of the additional or marginal costs of each option relative to the 'Do Nothing' option (the baseline position presented above).
55. For each option described below, the costs have been broken down by each of the products as follows:
 - SoNaRR
 - NNRP
 - Areas statements
 - Land management agreements
 - Experimental schemes

Option 2 (preferred): Delivery of area statements in a way which focuses on priorities identified in the NNRP

56. This option is associated with the implementation of area statements in a way which focuses on the identification of opportunities that will deliver on the priorities identified in the NNRP. This approach balances overall resource costs to NRW with the realisation of benefits required under the Bill.

Preparation and production of a state of natural resources report (SoNaRR)

57. The main action required for the preparation and production of SoNaRR that has been assessed as having a significant impact is action to provide an assessment of the status of natural resources in Wales and make available information needed for the Welsh Ministers to set priorities and opportunities at a national level (NNRP). The costs for the preparation and production of SoNaRR will fall on NRW.
58. NRW will be required to prepare and produce a SoNaRR on a set timeframe as outlined in the Bill. SoNaRR contains an assessment of the state of natural resources in relation to Wales, including an assessment of the extent to which the sustainable management of natural resources is being achieved. NRW are required to publish the first SoNaRR four months after section 8 of the Bill comes into force.
59. The subsequent SoNaRR must be published before the end of the calendar year prior to the year when an ordinary general election is held. In the case of an extraordinary election, SoNaRR would be unaffected; the report is a stand alone product that will be required on a 5 yearly basis to make available the information needed for Welsh Ministers to set priorities for action at the national level. In addition, NRW will be required to provide a draft of SoNaRR to the Welsh Ministers before the publication of the final report, in each SoNaRR cycle except the first. Work to continually update the SoNaRR would be carried out anyway, consequently, it is expected that the costs would be minimal and would cover the publication of the reports.

60. Preparing the report will require sufficient technical skills (not limited to environmental knowledge) within NRW to produce assessments of evidence on natural resources and other socio-economic information in order to identify opportunities and risks at a national level. For the first SoNaRR, it is expected that NRW will rely on existing stocks of environmental, economic and social data. For future SoNaRRs, it is anticipated that they can also draw on information and evidence gathered for the purpose of the preparation of an area statement and any subsequent monitoring of the impacts of the statement.
61. In the absence of the Bill and a specific requirement for NRW to produce a SoNaRR, NRW would still need a clear national baseline to guide their operations and would have continued to produce a '*State of Environment*' Report, which was planned in for 2016. Given therefore that reporting would have been undertaken in the absence of the Bill, it is reasonable to assume that some staff time would have been allocated to the collation of information into a national level picture. It is recognised however, that the scope of SoNaRR will be broader in terms of coverage.
62. NRW may request information and/or assistance from other public bodies (listed in section 10 of the Bill) in the preparation and production of SoNaRR and these bodies are required to assist where this is assistance does not fall under a qualification provided in the Bill.

Additional Staff

63. NRW's organisational structure currently includes those with skills required to fulfil the reporting requirement i.e. environmental and social scientists. Some of the requirements can be met through the existing structure and/or through the ongoing process of transformation. However, the duty on NRW to manage and deliver SoNaRR may require some additional staff time and skills.
64. The production of the first statutory SoNaRR will need to be "project managed" using skills and expertise which are part of the existing staffing structure. It is estimated that the costs involved are likely to be associated with the following tasks:
 - project management costs (workshops, communications, pulling together external bodies and experts);
 - costs of any specific commissions (research, academic reports, or costs to other bodies of participation);
 - report writing and development costs;
 - other ongoing communications and website development; and
 - Independent Quality Assurance.
65. Based on the tasks set out above, it has been estimated that the production of the first SoNaRR will require in the region of 5 (full-time equivalents) FTEs. It is anticipated that the focus of the work will be on the identification of ecosystem resilience on an area basis, collation of ecosystem resilience evidence, the status of those services and identification of the relevant values. In practical terms, given the equivalent work that would have been taken forward under the baseline scenario, the additional resource required for the first SoNaRR is

estimated to be equal to about 2 FTE working on this full time, or equivalently, 40% of the cost of the team.

66. It is also estimated that additional future resources would be required if it is envisaged that the report will go beyond a synthesis of existing analyses, which may include a large number of novel, more complex analysis. For this situation, it is anticipated that a total cost of between 8 – 10 FTEs would be involved in this activity by the second cycle (2021). However, under the baseline scenario, some existing capability of a similar nature would have been in required and the first SoNaRR would have been produced. Therefore the additional resource is estimated at 3-5 FTE staff.
67. On this basis, assuming 2 additional FTE staff (based on 40% of staff time with grading structures (of 1 x D1, 2 x C2, 2 x C1) over two years for 2016/17 and 3-5 FTE additional staff over 2 years for 2021-22 (using the same staff split), annual costs range from £99,000 for the 2 years for 2016/17, to £148,400-£247,400 for the 2 years for 2021/22.
- 68. Over 10 years, this cost is therefore estimated at £494,800 to £692,700.**

Training

69. Training will be required for NRW staff who will deliver statutory planning and analysis functions in order to ensure there are relevantly skilled staff to do general assessments across a large range of issues in line with the principles of natural resource management. The costs of this training are estimated in terms of both the staff time needed to undertake training, and the costs of employing external training providers. In addition, some training is also likely to have been necessary in order to deliver against the current statutory purpose and in order to deliver against the Well-being of Future Generations Act requirements, but the likely impact of the Bill is to accelerate this need.
70. It has been estimated that 15% of 1,850 staff (equal to 288 FTE) spend on average 33% of time on statutory planning processes (giving ~92 FTE). If it is assumed that NRW require training in proportion to the time they devote to statutory planning processes and these 92 FTE staff require 2 days training in integrated natural resource management, then this gives a requirement for 184 staff training days delivered. The cost of this time for full time professional staff is estimated to be £19.75/hour or £150/day (ONS, 2013), which is £300 for 2 days. For 92 FTE staff this cost is therefore **£27,500**. As an upper estimate, assuming that all staff requires 2 days training would increase this figure to **£550,000**. These training costs would be incurred in 2016-17 and are estimated at **£27,500 to £550,000** over 10 years.
71. An estimated cost of providing 1 day of training from environmental economics consultants/ academics is estimated to be up to **£20,000** for approximately 100 staff. This has been calculated assuming a day of training can be delivered by 2 trainers to a group of up to 20 staff, giving a requirement for 10 days of training sessions. The cost of trainers is estimated at £800 per day, covering these 20

days, plus 5 days for planning the training activity. These 25 days therefore have a one-off cost of up to **£20,000**. This cost will be incurred in 2016-17.

72. Although the Bill will introduce different ways of working to NRW and public bodies, which may incur initial additional costs, these will be alongside the complementary work to embed the requirements of the Well-being of Future Generations Act 2015. It is expected that any costs associated with this new approach will be incurred initially for a period of five years, but will reduce over time as the processes become embedded into the organisations. However, there is also potential for efficiency savings in the short and medium term, by taking advantage of the opportunity to integrate and rationalise planning and delivery functions provided through the frameworks put in place through the Well-being of Future Generations (Wales) Act 2015 and Environment (Wales) Bill. The scale of these savings cannot be quantified at this point and therefore are not encompassed in the assessment.
73. Part of this new approach may include a requirement to allocate time to establish more collaborative working and enhanced engagement with stakeholders. This can incorporate learning from the current pilots, in order to establish different ways of delivering the sustainable management of natural resources. Overall these activities are expected to be met by re-allocation of existing resources, and so are not thought to involve additional costs.
74. The expectation is that the collaborative efforts to produce area statements will be undertaken through an iterative approach, with learning-by-doing over time and will join up with the processes to develop the well-being plans. This suggests an effort profile with short term cost which then tail-off. This profile of costs and 'learning' is picked up in this RIA by assuming training is required in the first year of implementation. This will feed back into future SoNaRRs as evidence, which will be drawn from area statements.
75. The cost of training consultants would be incurred in 2016-17 (year 0), and is estimated at **£20,000**.

Analytical Tools

76. There may also be some additional transitional costs associated with staff time to move from state of the environment reporting to state of natural resources reporting at a **national level** (SoNaRR), with the application for area statements being at a **local level**.
77. In order to provide an estimated figure of the costs involved for those methods that may be adopted in the preparation and production of SoNaRR, existing analytical tools have been drawn on. It is assumed that the following methods are representative of those that may need to be adopted and provide illustrative examples of the costs that could be involved in the production of SoNaRR. This cost would not be borne again but has been used to highlight the potential variable costs for SoNaRR.

78. The following cost estimates for SoNaRR, for the use of analytical tools, are based on the cost of using Natural Capital asset check and SCCAN Natural Resources Planning System.
79. For SoNaRR, the lower estimate is based on the cost of using Natural Capital asset check at a **national level**, and the upper estimate is based on using SCCAN Natural Resources Planning System at a **national level**.
- i. Natural capital asset check (UKNEAFO, WP1)
80. The time taken (for experts in the field) to complete a Natural Capital Asset Check is known from the UK National Ecosystem Assessment Follow On Phase, UKNEAFO WP1 project = 5 – 10 days work (UKNEAFO WP1, 2014). Assuming that a national level asset check is across 8 UKNEA habitat types, means a requirement for 8 asset checks. The assumed cost of academic time is at a representative cost of £800/day. The time for 7.5 days per asset check for 8 asset checks is therefore £48,000. It is assumed that this analysis is repeated every 5 years when SoNaRR is reproduced. Assuming this analysis is undertaken in 2017/17 (year 0) and 2021/22 (year 5), gives a cost of **£96,000** over 10 years, which forms a lower estimate.
- ii. SCCAN Natural Resources Planning System⁴⁹
81. Analysis of analytical tools was explored further by looking at the use of a Geographic Information System (GIS) to adopt a national level of reporting, such as the SCCAN Natural Resources Planning System. SCCAN delivers an ecosystem service mapping system to assist people in taking ecosystems approach to decision making and can be applied at national and local levels (CCW, 2012).
82. Assuming that such a project would be undertaken once at a national level would mean a cost of £150,000. This is a one-off cost (incurred in 2016) for producing an automated system for creating the maps developed in consultation with NRW. This assumes that it is unlikely that the existing method can be taken and rolled out nationally. It is expected that more work will be needed before something like this can be used for reporting. There will also be costs associated with keeping the system up to date, estimated to be £50k every 5yrs, so it is assumed that this cost will be incurred in 2021) The total cost is therefore £200,000 over the 10-year appraisal period. If the system is updated on a more regular basis, which may be needed to inform other NRW work, these costs will go up.
83. Therefore, the cost to NRW of analytical tools ranges from **£96,000 to £200,000** over 10 years.

⁴⁹ Both the Natural capital asset check and the SCCAN Natural Resources Planning System are optional tools, and have yet to be fully assessed of their value as practical tools through testing and trialling of their application.

National Natural Resource Policy

84. It is not anticipated that the preparation and production of NNRP will differ greatly between the options presented in this RIA. The main action required for the preparation and production of NNRP, has been assessed as having low cost implications for Welsh Government.
85. The Welsh Ministers must prepare and publish a NNRP, setting out their policies for contributing to achieving the sustainable management of natural resources in Wales. The Welsh Ministers are required to publish the first NNRP before the end of ten months starting with the day the section comes into force. The Welsh Ministers must review the NNRP after each ordinary Assembly election and to produce a revised NNRP if required. A review is also required if there has been an extraordinary Assembly election as provided for in the Government of Wales Act 2006. Carrying out a review may also involve some costs. An extraordinary election (in addition to the 5 year cycle) will impact on the preparation and production of NNRP. The priorities and actions will be redefined depending on the outcome of the election, which could lead to additional costs to review a NNRP and then if required to produce a revised NNRP.
86. The preparation and production of NNRP will be delivered by consolidating strategic commitments and priorities to ensure a focus in areas that deliver maximum multiple long-term benefit for Wales. This integrated approach may also support efficiency savings in comparison to the stand alone development of individual policies and strategies.
87. The skills to prepare and produce NNRP already exist within the Welsh Government and thus there is only a requirement for an increase in staff time spent on this. It is estimated that the staff time required for the production of a statutory NNRP by the policy team in Welsh Government is 25% of a Grade 7's time, 100% of an SEO's time, and 25% of an EO's time, over 18 months. Based on the pay scales set out for Welsh Government staff (including on-costs) the estimated costs dedicated to the preparation and production of a statutory NNRP is as follows:

Grade 7 = $1 \times 25\% \times £69,408 \times (18/12) = £26,028$

SEO = $1 \times 100\% \times £51,912 \times (18/12) = £77,868$

EO = $1 \times 25\% \times £30,693 \times (18/12) = £11,511$

Total: £36,028 + £77,868 + £11,510 = £115,407

88. These costs would occur in 2017-18 (year 1) and 2022-23 (year 6), to tie in with ordinary general elections. The additional cost to the Welsh Government associated with the preparation, publication and review of the NNRP are approximately £230,800 over the 10-year appraisal period.

89. An assumption has been made that the preparation and production of NNRP will be the same and result in similar costs for each production. This is based on it being a statutory requirement, under 3 of the 4 options presented in this RIA. It is not anticipated that the costs of will fluctuate significantly enough to present a possible range. It is expected that costs will be managed within current budget constraints and through in house management of finances.

Area statements

90. There are two distinct stages in relation to area statements: (1) preparation and publication; and (2) implementation.
91. For (1), the variations are:
- (a) number of area statements;
 - (b) coverage of an individual area statement;
 - (c) number of priorities and opportunities applicable to that area;
 - (d) number of potential natural resources to be covered in an area statement;
 - (e) number of parties/bodies with whom NRW will need to engage with in the preparation of the statement;
 - (f) available evidence; and
 - (g) time taken to prepare an area statement
92. For (2), the variations are:
- (a) Number of potential projects that NRW identify as potential actions;
 - (b) Timescale for delivery of these projects;
 - (c) Cost of projects;
 - (d) Number of parties with whom NRW may wish to work with for the delivery of a project;
 - (e) Time NRW commit to engaging with other bodies/organisations to encourage them to contribute to the implementation of an area statement; and
 - (f) Existing actions within area that can contribute to the implementation of the statement
93. For the purpose of this RIA, it is assumed that the preparation and production of area statements will require actions to deliver on the following, which may have significant impacts:
- Planning, preparation and roll out.
 - Collaborative governance.
 - New area-based/ integrated evidence monitoring and collection requirement.
 - New integrated ecological, economic and social science evidence analysis.
 - SEA sustainability appraisal of area statement, where required.
94. This option (the 'Measured approach' (preferred) option) is associated with the delivery of the area based approach in a way that focuses on the identification of opportunities to deliver the priorities identified in the NNRP and therefore balances overall resource costs to NRW with the realisation of ecological benefits required under the Bill. This may mean that some area statements deal

with specific priorities and opportunities, whilst others may simply summarise the risks drawn from existing reports and other sources of information.

95. As outlined above, the preparation and production of area statements is likely to be delivered in a way that reflects the existing process used for SEA, for example, in relation to the collection and analysis of evidence. The intention is that the processes will complement each other where practicable and avoid duplication where possible. Some separate work may need to be done to inform each document - the aim being that they will work to feed into one another.
96. The assumption is that:
- **Number of areas** – By way of comparison for the purpose of this RIA, it is assumed that the identification of opportunities to deliver on key priorities from the NNRP can be done through 11-14 of the area statements.
 - **Speed of implementation** – may depend on the size of the area to be covered and on the number of priorities to be addressed in an area statement. An area statement dealing with only one priority in a defined area may be delivered quicker than an area statement under Option 2. Engagement with stakeholders may be more focused at a smaller scale may enable quicker collaboration. An increased number of priorities may however mean that it may take NRW longer to produce all statements before a review of the NNRP. The expectation is that the collaborative efforts to produce area statements will be through an iterative approach linked to the wider development of well-being plans, with a gradual 'learning-by-doing' approach.
 - **Extent of collaboration** – existing collaborative efforts including public service boards (Well-being of Future Generations (Wales) Act 2015 under the baseline) will be used in the first instance. This assumes that other public bodies adhere to / collaborate with NRW on the implementation of the area statement.
97. Over time, NRW may be in a position to better understand the costs of undertaking a review of an area statement. The assumption is that once the process of developing area statements had been defined, the review period would unlikely begin until after the first 5 years, by which time the transformation activity should have been designed and implemented to absorb the costs of any future reviews.
98. Due to this information not being fully available at present, assumptions have been made for calculating costs, which can be found below with the costs of the actions highlighted above:
- a. Planning, preparation and roll out**
99. This is anticipated to require additional staff resources to ensure NRW is prepared for the new duties. Actions here include:
- NRW Transformation Programme to plan for and roll-out the implementation of the new duties in the Bill.
 - Process re-engineering work to understand where efficiencies can be gained from aligning planning functions.

- Staff training and development to apply the sustainable management of natural resources duty.

Costs to NRW

100. A Transformation Team in NRW was appointed in October 1 2014 which consisted of 4 FTE staff and 1 FTE Programme Manager within KSP Directorate. The team is currently planned to be in place until at least September 2016, but the likelihood is that the need will continue beyond that point in order to ensure delivery against the Well-being of Future Generations Act 2015. The costs of the team fall under the baseline as these costs would be incurred in the absence of the Bill, to facilitate the transformation of 3 predecessor bodies to NRW.
101. 3 FTE area trial leads have also been appointed using additional funding provided by Welsh Government. There are also currently a further 2 FTE Natural Resource Planning Managers and 4 FTE Team Leaders within the Operational Directorates working as a virtual team, to implement the transformational agenda in line with meeting the Bill and wider requirements – which will continue over a time period assumed to be until 2019-20.
102. Using NRW’s pay scales (including on-costs) and information provided by NRW on grades and the percentage of time spent on these activities, annual costs can be calculated as follows:

Area Trial Leads = 3 x 100% x £54,972 = ~£164,900
 Natural Resource Planning managers = 2 x 20% x £86,802 = ~£34,700
 Team Leaders = 4 x 20% x £70,075 = ~£56,100
 Total = £164,900 + £34,700 + £56,100 = £255,700 per annum.

Assuming these costs are borne annually, between 2016-17 and 2019-20, the upper range of costs over the 10–year appraisal period is **£1,022,800**. It should be noted however that some costs would have been associated with the baseline scenario and in practice, as detailed below, the work will also focus on the identification of efficiencies. Given that these aspects are however difficult to quantify and separate from the above costs, the total cost has been included to illustrate the upper range.

103. Furthermore, using the model employed with the Transition Programme, NRW expect a further 10-15 staff to act as Natural Resource Management project owners, or champions, rolling out the provisions in Part 1 of the Bill, either as a proportion or all of their time over the next 3-5 years. This will depend on how the delivery of the options evolves and further work is needed to assess the efficiencies that can be achieved through the development of area statements in parallel with the simplification of existing planning and delivery functions. Assumptions have therefore not been made on the potential extent of efficiencies of integrating planning processes and functions, but work will be progressed to map this in the first phase of the transformational process. However, although

there may be some additional costs associated with maintaining the Transformation Programme - within the first 3 years of the Bill - and rolling out that change across the business, there will be the opportunity to combine this with the changes required by the Well-being of Future Generations Act 2015 and costs will also diminish over time. Therefore, for the purposes of this assessment, it is assumed that 10-15 Grade 6/7 staff spend a proportion of their time (5-15%) in this capacity, of which up to half may be additional in respect of the Bill.

104. Assuming these costs are borne annually between 2016-17 and 2019-20, at a range of £35,000 to £65,100 per annum, additional costs over the 10 year period are therefore estimated to be **£140,200 to £260,400**.
105. It is anticipated that there will also be some marginal costs in helping the transformational team to design new processes in a co-productive way. This may be new skills obtained through training or through buying in services such as facilitation. It is assumed that these costs fall within the range of costs for additional training set out previously.
106. Overall, the additional cost of planning, preparation and roll out is estimated to be between £290,700 and £451,000 per annum between 2016-17 and 2019-20 or **£1,162,900 to £1,283,200** in total over 10 years.

b. Collaborative Governance

107. It is anticipated that additional staff resources may be required to ensure stakeholder buy-in, although it should be noted that NRW will need to have in place collaborative capability under the baseline scenario given its statutory obligations under the Well-being of Future Generations Act 2015. Relevant actions here include:
 - NRW must collaborate with other public bodies when preparing the area statements and consider their representations, (preparation itself is to be done by NRW) as required under the principles of the sustainable management of natural resources, which form part of the new NRW statutory purpose
 - Public bodies (as outlined in section 10 of the Bill) must provide NRW with information or assistance in the preparation and production of an area statement, where NRW has requested this assistance. This supports the existing collaboration requirements under the Well-being of Future Generations (Wales) Act 2015.
 - In order to avoid discontent with public bodies and to deliver the objectives of the area based approach – NRW should ensure that public bodies are engaged and supportive of the process involved in the development of an area statement.

Costs to NRW

108. The expectation is that the current complement and skills of NRW staff may need to be supplemented, during the transition, in order to undertake the collaboration required under the Bill. In addition, the focus of the work will be different with an

increase in NRW staff focussing their activities on the ground, for example, delivering local stakeholder engagement, and an associated re-organisation of internal NRW processes to deliver the principles of sustainable management.

109. Some of collaborative arrangements may already exist or may evolve from existing partnerships or networks.
110. Based on information provided by NRW, any governance management around catchment management or an area based approach would require the efforts of up to 3 FTE staff. It is expected that two of these would be at Grade 4 and one at Grade 5, spending at least 80% of their time on this. Based on NRW staff costs (plus on costs) this would mean an additional cost of £113,300 to £141,600 per annum from 2016-17. This level of resource is likely to be needed on a rolling basis in order to prepare and produce area statements, but given the requirements under the baseline scenario then a staff complement of 3 FTE for new collaborative efforts is considered to be more than sufficient.
111. However, it is important to note that, as the intended objective for area statement implementation is for it to become the primary means for NRW to deliver its functions, there is significant potential for a reduction in staff resource requirements elsewhere in the organisation. For instance, this might include a reduction in resource required to produce a large number of current statutory and non-statutory plans as result of rationalisation and integration into area statements.
112. Overall, upper range of the marginal costs of collaborative governance to NRW is estimated at **£1,415,800**.

Costs to Other Public Bodies

113. Public bodies are required to share information in relation to providing assistance to NRW in the production of SoNaRR and the area statements, identifying opportunities for sustainable management and joint working between stakeholders and NRW.
114. The collaborative requirements under the Well-being of Future Generations (Wales) Act will assist in the delivery of collaboration under the area statements. In addition to the requirements set out in the Environment (Wales) Bill, public bodies will also have obligations under the Well-being of Future Generations (Wales) Act 2015.
115. It is reasonable to assume that members of Public Services Boards, and others public bodies who have been invited to participate in their activities, will share information with NRW to inform the development of the area statements given the link with the preparation of assessments of local well-being.
116. Overall then, the marginal cost to other public bodies of collaborative governance is £0.

c. New area-based/ integrated evidence monitoring and collection requirement

117. It is likely that some new data requirements would have been met under the baseline on an ad hoc basis and to meet NRW's statutory obligations under the Well-being of Future Generations Act 2015. New data requirements could however have an impact as an integrated approach to natural resource management becomes embedded – but NRW are working to clarify key evidence gaps in this data.
118. Overall, it is anticipated that some additional staff/monitoring resources for some evidence requirements may be needed.
119. Evidence gathered to inform the RIA has indicated that existing data is expected to be sufficient to enable adequate analysis to be done to fulfil the objectives of an area statement, at least in the first instance.
120. The expectation is that the area statements will be produced in a way that acknowledges data gaps (i.e. where better or different types data might be more effective) and how these might be filled going forward. There may therefore be some investment needed in secondary research/new area based cuts of data for on-going monitoring and reviews and revisions of area statements and potentially any new statements required to implement a revised NNRP. Based on feedback from consultation with NRW in relation to this RIA, this cost may not be absorbed into the ongoing costs of NRW's transition (i.e. the 'change programme') under the baseline, however some of the work (e.g. to generate a GIS portal) will enable the presentation and analysis of existing data in different ways.
121. Furthermore, there is a suggestion that current monitoring, which is prescribed so that it aligns with individual EC requirements could be more integrated and redesigned so that indicators reported are more integrated whilst still being compliant of respective Directives. This could use fewer resources in the long term, although this has not been assumed in this cost-benefit analysis. There is a risk that without collaboration on evidence collection, or if evidence is required on a more rapid timetable, there would be additional costs for NRW.
122. Overall, the marginal cost to NRW of new evidence requirements will need to be considered as part of the implementation of the Bill – these costs are currently unknown. .

d. New Integrated ecological and social science evidence analysis

123. To prepare statements in accordance with principles of sustainable management of natural resources requires consideration of:
- Evidence on natural resources and ecosystem services relevant to an area including data on status and trends (including change due to climate change), resilience (e.g. connectivity, adaptability, extent, status) and thresholds in the context of societal welfare.
 - The wider role that the natural resources of a place have in contributing, both alone and in combination, to the societal and economic needs of an area at a wider landscape or area basis.

- What scale provides the best opportunities to deliver on the priorities and opportunities for management of natural resources set out in NNRP.

124. Overall, this means it is anticipated that additional staff resources may be required to deliver integrated ecological and social science reporting. However, to an extent, NRW would need to have this capability in place to meet its obligations to deliver against the Well-being Goals established through the Well-being of Future Generations Act 2015.

Additional staff and training

125. Area statements require reporting on the status and trend in natural resources at a local level in a manner that is consistent with natural resource management. This will require staff time within NRW to produce integrated assessments of evidence on natural resources and the links to other socio-economic information in order to identify opportunities and risks at this local level.

126. It is reasonable to assume that the staff resource used in area/local level integrated natural resource management assessments are the same as those involved in such assessments at a national level (i.e. for SoNaRR). In addition, it is also reasonable to assume that this is a requirement that flows from the Well-being of Future Generations Act 2015 in the baseline scenario. Therefore, additional staff resources (numbers and training) for reporting are considered once under the framework for Part 1 of the proposals. This assessment is based on resources for local reporting.

Analytical tools

127. NRW currently retains some analysis and reporting capacity at both the strategic and local level in relation to environmental status, but implementation of Option 2 recognises that some additional transitional costs may be incurred, for staff time to collate, interpret and report on the status of natural resources, at a local level, as is required for the application for area statements.

128. As for SoNaRR, existing analytical tools were used for illustrative purposes. It has been assumed that the following methods are representative of those that may need to be adopted and the costs that could be involved in the production of an area statement. This cost would not be borne again but has been used to highlight the potential variable costs for area statements.

129. For area Statements the lower estimate is based on the cost of Natural Capital asset at a **local level**, and the upper estimate is based on the cost of SCCAN at a national level.

130. Therefore the cost of using of SCCAN at a **national level** is just used to provide an upper estimate for the kind of cost that might be expected here for area statements.

i. Natural capital asset check (UKNEAFO, WP1)

131. The time taken (for experts in the field) to complete a Natural Capital Asset Check is known from the UKNEAFO WP1 project to require at least 5 days work (UKNEAFO WP1, 2014). Assuming that analysis similar to a short asset check, taking 6 days of work, is required to inform each of 11-14 area statements, this involves at least 66 days work by relevant experts. The analysis could also be done using additional staff time from within NRW, but this is assumed to take longer, and therefore be a similar overall cost.
132. Based on a cost of academic time of £800/day, this gives an estimate cost of £52,800 to £67,200. It is assumed that this analysis is first undertaken in 2016-17 and repeated every 5 years when SoNaRR is reproduced. This gives an overall marginal cost of **£105,600 to £134,400 over 10 years**. This provides the lower estimate.

ii. SCCAN Natural Resources Planning System

133. A more detailed analysis including the use of GIS such as the SCCAN Natural Resources Planning System might be adopted at a **national** level. SCCAN delivers an ecosystem service mapping system to assist people in taking an ecosystems approach to decision making and can be applied at national and local levels (CCW, 2012). Assuming that such a project would be undertaken once at a national level would mean a cost of £150,000. This is a one-off cost, incurred in 2016-17, for producing an automated system for creating the maps developed in consultation with NRW. This assumes that it is unlikely that the existing method can be taken and rolled out nationally. It is expected that more work will be needed before something like this can be used for reporting. There will also be costs associated with keeping the system up to date, estimated to be £50,000 every 5yrs (i.e. in 2021). If the system is updated on a more regular basis, which may be needed to inform other NRW work, these costs will go up. This gives a cost of **£200,000 over 10years**. This provides the higher estimate.
134. Overall, the marginal cost to NRW of new integrated reporting at national level ranges from **£105,600 to £200,000 over 10 years**.

e. SEA Sustainability Appraisal of area statement

135. It is anticipated that the area-statements may be required to undertake the SEA process, which requires consultation with relevant bodies and the public. Skills to undertake SEA already exist within NRW under the baseline scenario, but some increase in staff time may be required particularly in the initial implementation phase. Information provided by NRW suggests that the estimated cost of producing an additional SEA is a one-off cost every time an area statement is produced of between **£10,000 and £15,000**. This cost would comprise of:
- Additional work required by Environment Officers to capture and analyse information relevant to comply with SEA Directive, consulting statutory consultees on the “scoping report” and writing the Environmental Statement and Post adoption monitoring plan.
 - Input from the Environment Assessment Technical Specialists to provide support to Environment Officers developing the SEA as part of the Area Statement to ensure compliance.

- Input from NRW who provide the statutory consultee function on all SEAs (there is a clear separation of duties here, and this is a required part of the process).
136. If we assume there are 11 area statements, this is a cost of £110,000 to £165,000 in total. This cost is expected to be incurred in 2016-17 and 2021-22. There may be additional statements required following a revised NNRP. There could also be amendments to existing statements in line with NNRP revisions. This could include an amalgamation of some statements for some areas.
137. The process of producing the NNRP and the area statements will form a similar process to an SEA and are likely to be lower end of the range stated.
138. This means that the additional cost to NRW is estimated at up to **£220,000 to £330,000** over 10 years.

Land Management Agreements

139. The Bill provides NRW with an enhanced power to enter into voluntary land management agreements with other persons who have an interest in the land.
140. The assumption made in relation to land management agreements is that NRW would be able to use the enhanced power in the course of their regular activity but that it would cost no more or less to implement. NRW land agents that manage this type of work are a fixed resource so would be only able to process the same number of management agreements as is done so currently, albeit they might be for more ambitious and different things through the extension of the power.
141. It is predicted that the powers are more likely to be used where there are significant push or pull incentives for doing so. This could include significant environmental outcome, or significant financial / social return on investment (including efficiencies). Therefore the assumption made here is that the powers will only be exercised where they are deemed cost effective.
142. Qualitative analysis has identified that there are not expected to be any significant additional impacts associated with new powers for NRW to enter into management agreements. It has not been possible to estimate any potential costs or benefits, however, given that implementation approaches would very much depend on the specific spatial and operational circumstances, as well as the nature and role of different parties involved when these provisions are applied. Therefore, an additional cost compared to the baseline has not been estimated.

Experimental Schemes

143. The Bill provides NRW with a power to undertake experimental schemes in order to develop or to apply new or even modified approaches to the delivery of their functions in order to achieve the sustainable management of natural resource.

NRW can trial the development or application of new methods, concepts or techniques to deliver their actions in a way that can help to achieve the outcome of sustainable management of natural resource. This may include new administrative, technical, or scientific approaches to achieving this outcome. NRW may submit an application to the Welsh Ministers to suspend (via regulations) a specific provision in environmental legislation for a restricted period of time. A suspension of the provision must be to enable an experimental scheme to be undertaken, where without the temporary suspension the scheme would not be possible.

144. The extent of new engagement with the private sector is dependent upon whether NRW makes use of its powers and the nature of the innovative schemes it pursues. Potential uses of the powers of innovation include:
- **Payments for ecosystem services (PES)** – this involves interactions between buyers and sellers in the private sector and of them with the public sector as an auditor/regulator. This will impact the roles of staff at NRW and potentially require more resource if PES engagement officers were to be employed for example.
 - **Carbon storage:** to test ways of mitigating against the causes of climate change, for example by piloting or supporting the roll out of carbon capture techniques, which in the future are likely to become increasingly important means of responding to carbon emissions.
 - **Licensing and permitting:** to trial approaches that may improve outcomes from permitting, streamlining, or to provide multiple benefits.
 - **Innovative ways of gathering information** including trialing new techniques, for example in relation to measuring pollution.
 - **General Binding Rules:** to gather evidence to inform how these could be taken forward.
145. There is an ongoing process of internal recruitment in place to fill some posts in NRW in relation to these powers. To pursue this activity and to make it integral part of what NRW do will mean they need to stop other activities. NRW will only be able to pursue experimental schemes where it is economically viable to do so – and that might mean looking for innovative sources of external funding. Therefore, additional costs cannot be anticipated. NRW are already preparing some case studies to help describe the potential application of the experimental powers where any costs anticipated with the various steps in the process are being factored in.
146. It is predicted that NRW are more likely to use these powers where there are significant push or pull incentives for doing so. This could, for example, either be policy lean from the Welsh Government, significant environmental outcome, or significant financial / social return on investment (including efficiencies). Therefore the assumption made here is that the powers will only be exercised where they are deemed cost effective (i.e. where NRW can pursue improved environmental outcomes with more resources (i.e. through employing a PES officer). These powers are temporary and for trial areas only (not the whole of Wales) therefore the expectation is that significant long term staff resource is not being devoted to implementing experimental schemes under the Bill. Greater roll out of innovative approaches and/or legislative changes that result from the

evidence gained in these trials may lead to more significant resource requirements. Because of this and the assumption of cost effectiveness, the impacts of the required actions to trial experimental schemes under the Bill are unlikely to be significant.

147. Analysis has identified that the main actions that may have significant impacts (i.e. red status) are that experimental schemes will require action to deliver administrative and transactions costs, through implementation management and monitoring requirements. NRW must ensure the experimental trials are appropriately resourced to ensure they operate effectively in the planning, implementation and monitoring phases. As stated above, the trial nature of these powers means that it is expected that the powers will only be exercised in a small number of cases where they are deemed to be cost effective and transaction costs are not prohibitive. However, additional resources may be needed to monitor and evaluate the outcomes of activities – both to help broker activities, and to learn from them. It is assessed that the costs of publishing the outcomes of the scheme would be negligible.
148. Administrative and transactions costs for offsets (Report on Opportunities for UK Business that value and/or protect nature's service' 2012⁵⁰) are estimated to be between approximately 30% of the project cost. However offsets are more complex than some innovative tools (e.g. because there is a change in property rights, not just a service agreement) and PES processes are relatively more straightforward, therefore the expectation is that 10-20% of project costs might be more reasonable. These figures are given in relative terms and therefore it will increase with the number of trials undertaken. As above, it has not been possible to estimate any potential costs or benefits, however, given that implementation approaches would very much depend on the specific spatial and operational circumstances, as well as the nature and role of different parties involved when these provisions are applied, for the reasons given above, an additional cost compared to the baseline has not been estimated.

⁵⁰ http://www.google.co.uk/url?url=http://www.valuing-nature.net/sites/default/files/EMTF-VNN%2520study%2520final%2520report%2520140612_0.pdf&rct=j&frm=1&q=&esrc=s&sa=U&ei=YnEAVYmZFYbMPY7YgPgJ&ved=0CBoQFjAB&usg=AFQjCNFirlBAPUcCjH9sVlxglzYr4F_nzQ

Table 1: Option 2 – Summary table of costs

Costs are provided for their lower and upper range.

Area	Action	2016/ 17	2017/1 8	2018/ 19	2019/ 20	2020/ 21	2021/22	2022/2 3	2023/ 24	2024/ 25	2025/ 26
NRP	SEA Appraisal	-	£115.4k	-	-	-	-	£115.4k	-	-	-
SoNaRR	Additional Staff	£99.0k	£99.0k	£0.0k	£0.0k	£0.0k	£148.4k - £247.4k	£148.4k - £247.4k	£0.0k	£0.0k	£0.0k
	Training (staff)	£27.5 - £555.0k	-	-	-	-	-	-	-	-	-
	Training (consultants)	£20.0k	-	-	-	-	-	-	-	-	-
	Analytical tools	£48.0 - £150.0k	-	-	-	-	£48.0 - £50.0k	-	-	-	-
Area Statements	P,P&R	£290.7 - £320.8k	£290.7 - £320.8k	£290.7 - £320.8k	£290.7 - £320.8k	-	-	-	-	-	-
	Collaborative Governance	£141.6k	£141.6k	£141.6k	£141.6k	£141.6k	£141.6k	£141.6k	£141.6k	£141.6k	£141.6k

	New Evidence	-	-	-	-	-	-	-	-	-	-
	New Evidence Analysis	£52.8 - £150.0k	-	-	-	-	£52.8-£50.0k	-	-	-	-
	SEA Sustainability Appraisal	£110.0-£165.0k	-	-	-	-	£110.0-£165.0k	-	-	-	-
TOTAL		£789.5-£1,601.3k	£646.7-£676.7k	£432.3-£462.4	£432.3-£462.4	£141.6k	£500.8-£654.0k	£405.4 - £504.4k	£141.6k	£141.6k	£141.6k

Option 3: Delivery of full area statements across a small number of areas

149. This option is associated with the delivery of area statements that encompass both the opportunities to deliver against the priorities identified in the NNRP and the wider identification of opportunities at a local level in a small number of areas.
150. This option is not a viable option in practice and is only presented in this RIA for the comparison purposes only.

Preparation and production of a state of natural resources report (SoNaRR)

151. It is not predicted that variation in the speed of implementation and the extent of collaboration under the natural resource management framework will have an impact on the costs of SoNaRR. This is because the first SoNaRR will be required within four months of the Act coming into force and then in subsequent years must be produced as outlined in the timetable provided in the Bill. As such NRW have no discretion in when a SoNaRR must be produced.
152. Similarly, the extent of collaboration that is chosen to implement the natural resource management framework will not impact the costs of producing SoNaRR, which (following the first SoNaRR) is likely to use the evidence gathered for the production of the area statements (local level). In addition, the baseline includes the collaborative requirements of the Well-being of Future Generations Act 2015.
153. However, in contrast to Option 2 (preferred option) which considers NRW focusing on delivering against the priorities in between 11-14 area statements, Option 3 considers the full identification of opportunities in 3 area statements. Evidence gathered to inform the RIA indicates that there will be no extra costs in relation to staff training or additional staff required compared to that required under Option 2 (preferred option).
154. Overall, it is anticipated that the impact on the costs of preparation and production of SoNaRR are unlikely to be significant due to a change in the number of areas; therefore, any reduction in costs under this option will amount to very small changes compared to Option 2 (preferred option). Due to this being the lower cost option; the lower bound costs estimates for training and analytical tools have been used to inform the overall calculation for this option.

National Natural Resource Policy

155. It is not anticipated that the preparation and production of NNRP will differ greatly between the options presented in this RIA.
156. The processes involved in producing the NNRP and SEA will work to compliment each other where practicable and possible without creating duplication. Whilst the conclusions of the SEA may differ according to the sensitivities identified in the Assumptions, Sensitivities, and Risks section, the

costs of producing the NNRP or SEA at a national level will not. Therefore, it is not anticipated that the cost under this heading would differ significantly from those under Option 2 (preferred option).

Area statements

157. This option is associated with associated with the delivery of the local opportunities and priorities identified in the NNRP across a small number of areas. The assumption is that:
- **Number of areas** – the key priorities and opportunities in the NNRP can be delivered by 3 area statements. The assumption is that areas will be of a comparable scale to a river basin management catchment plan.
 - **Speed of implementation** – based on fewer area statements it may take a shorter amount of time to ensure engagement with multiple stakeholders. There is a risk that momentum is lost in other areas that are not covered.
 - **Extent of collaboration** – the area statements are produced with less collaboration with stakeholders given the focus on a limited number of areas.
158. For Option 3, it is estimated that the costs of collaborative governance and new area-based/integrated evidence monitoring and collection requirement are met under the baseline.
159. However, there are costs associated with planning preparation and roll-out. As under option 2 (preferred option), 9 FTE are to be employed to implement the transformational agenda. This will continue over a longer time period, assumed to be at least until 2019-20. Therefore, this results in a cost of **£1,022,800** over 10 years, equal to that under Option 2 (preferred option).
160. Furthermore, using the model employed with the Transition Programme, NRW expect a further 10 - 15 Grade 6/7 staff to act as Natural Resource Management project owners, or champions, rolling out elements of the new approach, as a proportion of their time over the next 3-5 years. Therefore, for the purposes of this assessment, it is assumed that 10-15 staff Grade 6/7 spend between 5% and 15% of their time in this capacity of which 5% is additional. This means an additional cost of **£140,200 to £260,400** over 10 years, equal to Option 2 (preferred option).
161. Overall, the marginal costs of planning preparation and roll-out are in the range **£1,162,900 to £1,283,200** in present value over 10 years.
162. The costs to NRW under Option 3 are lower compared to Option 2 (preferred option). This is due to a lower cost estimate for 'integrated ecological and social science evidence analysis', which is estimated to be lower than Option 2 (preferred option). Therefore, the marginal costs of new integrated ecological and social science evidence analysis are in the range **£95,000 to £225,000** present value over 10 years.
163. In addition, Option 3 is associated with fewer initial area statements. The estimated cost of producing an additional SEA is between £10,000 and

£15,000; this cost is incurred every 5 years when an area statement is produced. If we assume there are 3 area statements, this is a cost of £30,000 to £45,000. This cost is first incurred in 2016-17. Therefore, the marginal costs to NRW of SEA are in the range £55,300 to £82,900 present value over 10 years.

Other Public Bodies

164. No additional costs are anticipated for other public bodies under this option, as set out in Option 2 (preferred option).

Land Management Agreements

165. As for Option 2 (preferred option), it is not expected to be any significant additional impacts associated with the new powers to enter into land management agreements.

Experimental Schemes

166. As for Option 2 (preferred option), it is not expected to be any significant additional impacts associated with the new powers to trial experimental schemes.

Table 2: Option 3 – Summary table of costs

Area	Action	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26
NRP	SEA Appraisal	-	£115.4k	-	-	-	-	£115.4k	-	-	-
	Additional Staff	£98.9k	£98.9k	£0.0k	£0.0k	£0.0k	£148.4k	£148.4k	£0.0k	£0.0k	£0.0k
SoNaRR	Training (staff)	£27.5	-	-	-	-	-	-	-	-	-
	Training (consultants)	£20.0k	-	-	-	-	-	-	-	-	-
	Analytical tools	£48.0k	-	-	-	£48.0k	-	-	-	-	-
Area Statements	P,P&R	£290.7- £320.8k	£290.7- £320.8k	£290.7- £320.8k	£290.7- £320.8k	-	-	-	-	-	-
	Collaborative Governance	-	-	-	-	-	-	-	-	-	-
	New Evidence	-	-	-	-	-	-	-	-	-	-
	New Evidence Analysis	£47.5- £180.0k	-	-	-	-	£47.5- £45.0k	-	-	-	-
	SEA Sustainability Appraisal	£30.0- £45.0k	-	-	-	-	£30.0- £45.0k	-	-	-	-
TOTAL		£562.7- £740.2k	£505.1- £535.2	£290.7- £320.8k	£290.7- £320.8k	£0.0k	£274.0- £286.4k	£263.9k	£0.0k	£0.0k	£0.0k

Option 4: Full delivery of detailed area statements across Wales

167. This option is associated with the delivery of the area statements across Wales that identify the local opportunities and the opportunities for delivery against the priorities in the NNRP.

Preparation and production of a state of natural resources report (SoNaRR)

168. For the purposes of this RIA, the option considers the impacts across more than 14 areas.
169. As the number of areas delivered in full is increased, the variation in the costs of the SoNaRR at the national level is unlikely to be significant and so it is not expected that there will be any more of a burden in terms of staff training or additional staff required compared to that required under Option 2 (preferred option). The additional actions also do not relate to an increase in staff numbers or training over and above that set out in Option 2 (preferred option).
170. In addition, it is not predicted that variation in the speed of implementation and the extent of collaboration under the natural resource management framework will have an impact on the costs of SoNaRR as it will be required within four months of the Act coming into force.
171. Similarly, the extent of collaboration that is chosen to implement the natural resource management framework will not impact the costs of producing SoNaRR, which (following the first round of implementation) is likely to benefit from the evidence in the area statements (local level) to produce the assessment of the state of natural resources at the national level. Any additional time expended on collaborative engagement for the framework is assumed to be captured under area statements, not SoNaRR.
172. Overall, it is therefore anticipated that for SoNaRR there will be no additional increase in costs under Option 4, compared to those under Option 2. For the purposes of this Regulatory Impact Assessment, costs have been set equal to those in Option 2 (preferred option).

National Natural Resource Policy

173. It is not anticipated that the preparation and production of NNRP will differ greatly between the options presented in this RIA.
174. The processes involved in producing the NNRP and SEA will work to compliment each other where practicable and possible without creating duplication. Whilst the conclusions of the SEA may differ according to the sensitivities identified in the Assumptions, Sensitivities, and Risks section, the costs of producing the NNRP or SEA at a national level will not. Therefore, it is not anticipated that the cost under this heading would differ significantly from those under Option 2 (preferred option).

Area statements

175. This Option is based on the full delivery of area statements, requiring more detail over and above those produced through Options 2 and 3 to identify all the opportunities relevant to the priorities in the NNRP across all areas, together with the identification of all opportunities at the local level. The assumption is that:
- **Number of areas** - that there will be a larger number of area statements containing a greater amount of detail (over 14)..
 - **Speed of implementation** – As per option 2, it is anticipated that it may be quicker to produce a statement for specified priorities than for numerous local opportunities as per option 3. An increase in the number of area statements may however mean that the number of area statements produced in any year is lower, and it may take NRW longer to produce all statements following the NNRP. The expectation is that the collaborative efforts to produce area statements will be through an iterative approach, with learning-by-doing over time;
 - **Extent of collaboration** – There may be increased opportunities for focused engagement with specific stakeholders given the higher number of detailed area statements. Collaboration, however, will be assisted by sections 14 and 15 of the Bill which places a duty on public bodies and NRW to collaborate in the preparation and production of area statements or in their implementation.
176. Increasing the number of detailed areas, the speed of implementation and the extent of collaboration (key sensitivities) would potentially result in increases to the costs of the area statements associated with required actions to implement ‘integrated ecological and social science evidence analysis’, ‘collaborative governance for area statements’ and ‘new area-based/evidence for area statements’, as is explained below.

NRW

a. Planning preparation and roll-out

177. As under Option 2, 9 FTEs are to be employed to implement transformational agenda in line with meeting the Bill’s requirements. These additional members of staff are expected to cost NRW £255,700 per annum and will be appointed over a longer time period, assumed to be at least until 2019-20. Overall, this means a total **10 year cost of £1,022,800**.
178. Furthermore, using the model employed with the Transition Programme, NRW expect a further 10 - 15 grade 6/7 staff to act as Natural Resource Management project owners, or champions, rolling out elements of the new approach, as a growing proportion of their time over the next 3-5 years. Therefore, for the purposes of this assessment, it is assumed that 10-15 grade 6/7 staff spends between 5% and 15% of their time in this capacity, of which 5% is additional. This results in 10 year marginal costs of **£140,200 to £260,400**.

179. This means a 10 year marginal cost of **£1,162,900 to £1,283,200**.

b. Collaborative governance

180. Based on stakeholder consultation for this RIA, collaboration for LIFE projects requires the efforts of approximately 3 FTE staff. This equates to double the staff resource of Option 2 (preferred option), i.e. 6 staff (four at Grade 4 and 2 at Grade 5, spending at least 80% of their time on this). This kind of resource is likely to be needed on a rolling basis across areas, assuming there are >14 areas that are linked to ecological boundaries. A greater staff resource is required under this option because of the greater depth of analysis required across all area statements. This will mean a greater extent of collaborative efforts (requiring additional staff time to identify partners, implement administration and collaboration e.g. dedicated place based officer), setting up new processes/lines of communication and stakeholder engagement on local natural resource issues.

181. Also, increasing the speed of implementation will mean greater investment is required by NRW to be proactive in developing/refining new/existing collaborative efforts. Based on NRW staff costs (plus on costs) this would mean an additional cost of £226,500 to £283,200 per annum. This cost is incurred from 20-16-17 onwards.

182. Overall, the upper range of additional costs of collaborative governance to NRW is estimated at **£2,831,600** over 10 years.

c. New area-based/integrated evidence monitoring and collection requirement

183. Under this option there will be a larger number of more detailed area statements. The costs of redesigning existing monitoring indicators or undertaking secondary analysis on an area basis (e.g. using GIS), will, therefore, be higher and an additional FTE staff member may be required at grade 5 or 6, spending anywhere between 50-100% of their time on this. This equates to annual costs in the range **£27,500 to £70,100**. Also, a greater number of more detailed area statements will mean a greater number of new monitoring datasets are required in some/all area to ensure comprehensive coverage of data on natural resources on and consistency in datasets. This means that over 10 years it is estimated that the marginal costs of evidence monitoring and collection requirement are **£274,900 to £700,800**.

d. New integrated ecological and social science evidence analysis

184. Option 4 is also expected to mean an increase in costs given that the area statement is implemented quickly across a large number of areas that are linked to ecological areas (to be defined). This is because more detailed area statements will require an increasing NRW staff resource to interpret and analyse data accounting for social, economic and environmental challenges and opportunities at a local level. Also, a higher number of area statements for a smaller area may mean an increasing number of additional NRW staff resource required and/or training to interpret and analysis data accounting for

social, economic and environmental challenges and opportunities at a local level. As per the previous options, this would however be necessary to an extent under the baseline scenario. Overall this may though mean the marginal costs of new integrated ecological and social science evidence analysis could be up to **£158,400 to £375,000** over 10 years.

e. SEA sustainability appraisal of area statement

185. The skills to perform SEA already exist within NRW and thus an additional SEA will simply require an increase in staff time devoted to this. From the stakeholder consultation workshops, the estimated cost of producing an additional SEA is a one-off cost every time an area statement is produced of between £10,000 and £15,000. If we assume there are 20 detailed area statements, this is a cost of £200,000 to £300,000 in total. Assuming each statement is produced every 5 years mean that they will each be produced twice over 10 years.

186. Therefore, the marginal cost to NRW of SEA is **£400,000- 600,000** over 10 years.

Other Public Bodies

187. No additional costs are anticipated for other public bodies under this option, as set out in Option 2 (preferred option).

Land Management Agreements

188. As for Option 2, it is not expected to be any significant additional impacts associated with new powers to enter into land management agreements.

Experimental Schemes

189. As for Option 2, it is not expected to be any significant additional impacts associated with new powers to trial experimental schemes.

Table 3: Option 4 – Summary table of costs

Area	Action	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26
NRP	SEA Appraisal	-	£115.4k	-	-	-	-	£115.4k	-	-	-
	Additional Staff	£99.0	£99.0	£0.0	£0.0k	£0.0k	£148.4-£247.4k	£148.4-£247.4k	£0.0k	£0.0k	£0.0k
SoNaRR	Training (staff)	£27.5-£555.0k	-	-	-	-	-	-	-	-	-
	Training (consultants)	£20.0k	-	-	-	-	-	-	-	-	-
	Analytical tools	£48.0-£150.0k	-	-	-	-	£48.0-£50.0k	-	-	-	-
Area Statements	P,P&R	£290.7-£320.8k	£290.7-£320.8k	£290.7-£320.8k	£290.7-£320.8k	-	-	-	-	-	-
	Collab. Gov	£283.2k	£283.2k	£283.2k	£283.2k	£283.2k	£283.2k	£283.2k	£283.2k	£283.2k	£283.2k
	New Evidence	£27.5-£70.1k	£27.5-£70.1k	£27.5-£70.1k	£27.5-£70.1k	£27.5-£70.1k	£27.5-£70.1k	£27.5-£70.1k	£27.5-£70.1k	£27.5-£70.1k	£27.5-£70.1k
	New Evidence Analysis	£79.2-£300.0k	-	-	-	-	£79.2-£75.0k	-	-	-	-
	SEA Sustainability Appraisal	£200.0-£300.0k	-	-	-	-	£200.0-£300.0k	-	-	-	-
TOTAL		£1,075.0-£2,098.0k	£815.7-£888.4k	£601.4-£674.0k	£601.4-£674.0k	£310.6-£353.2	£786.3-£1,025.6k	£574.5-£716.0k	£310.6-£353.2k	£310.6-£353.2k	£310.6-£353.2k

Part 1: Benefits

190. The main potential benefit that has been assessed as having a significant impact (i.e. rated a red status) under the majority of proposals contained in Part 1, is a contribution towards the improved resilience of Wales' ecosystems. The way in which the proposals are anticipated to improve the resilience of Wales' ecosystems is set out below.

Potential benefits

191. The Bill will help to ensure:
- Functioning ecosystems that are delivering multiple services over the long term.
 - Processes are simplified and work is not duplicated.
 - Priorities focus on the needs and opportunities for different areas with the need and resilience of ecosystems at the heart of decisions that are taken.
 - There is a clear process to set direction at the national and local level.
 - There is clearer evidence on the capacity, opportunities and resilience of our ecosystems for future generations.
192. The Green Paper⁵¹ identified the following benefits:
- Potential benefits to business and land managers include:
 - More effective planning of the regulatory processes.
 - Clearer information on environmental outcomes, opportunities and constraints to aid investment decisions.
 - A more predictable and consistent framework for environmental decision-making, by reducing uncertainty in planning and other regulatory systems.
 - Support for new markets in environmental services such as carbon and water management.
 - Ensuring costs of compliance are appropriate to the extent of environmental risk.
193. For communities the potential benefits include:
- Positive investment in targeted local environmental improvements.
 - A greater focus on local needs, opportunities and concerns.
 - Greater opportunity for local input to decision making.
194. For the environment, potential benefits include:
- More targeted investment in environmental improvements.
 - Positive action to address the fundamental drivers of environmental change.
 - Increased resilience to pressures from climate change and reduction of the effects of climate change.
 - A strategic approach to promoting restoration and recovery of species and habitats.

⁵¹<http://www.webarchive.org.uk/wayback/archive/20110228135119/http://wales.gov.uk/consultations/environmentandcountryside/eshlivingwalescons/?lang=en&status=closed>

- A fuller reflection in decisions of the benefits we derive from our environment.

Overall benefit from improved resilience of Wales' ecosystem services

195. As it is not possible to determine the precise proportion of monetised benefits that will be attributable to the Bill for each of the proposals in Part 1 of the Bill, the appraisal of benefits is undertaken for the framework as a whole.
196. Analyses by Bateman et al. (2013)⁵² suggest that 'a targeted approach to land-use planning that recognises both market goods and non-market ecosystem services would increase the net value of land to society by 20% on average, with considerably higher increases arising in certain locations'(Bateman et al, 2013)⁵³. While it would be optimistic to attribute such an increase to the provisions of the Bill alone, this targeted approach is what the area statements aim to facilitate, and the recognition of both market and non-market goods is the idea of integrated economic, environmental and social planning. This study therefore provides an indication of the scale of potential benefits that could be enabled by the provisions.
197. Although there is no comprehensive model of ecosystem services in Wales that can accurately value the potential changes resulting from improved natural resource management, there are studies that can give an indication of the order of magnitude of the values involved.
198. A 2001 study⁵⁴ estimated that the environmental economy contributed £8.8 billion of goods and services annually to the Welsh economy (£12.04 billion in 2014 prices), 9% of Welsh GDP and one in six Welsh jobs, mainly in the leisure and tourism, agriculture and forestry, water abstraction, conservation and waste management sectors. It also found that the environment is relatively more important to the Welsh economy than it is to the other UK nations.
199. For illustrative purposes, it can be shown that if it is assumed that the economic benefits of the environment to Wales are £12 billion per annum, the annual value of the environment to the Welsh economy would only have to increase between 0.003% and 0.004% over 10 years for the benefits of a more resilient ecosystem in Wales to outweigh the increased costs of Option This small increase is very likely to be achievable, and so it is anticipated that benefits of the Bill will exceed the costs, particularly when other (non-monetised) benefits are taken into account.

⁵² *Bringing Ecosystem Services into Economic Decision-Making: Land Use in the United Kingdom*
<http://www.google.co.uk/url?url=http://www.nottingham.ac.uk/cem/pdf/Bateman-2013>

⁵⁴ *Environmental economy. is defined in the UK National Ecosystem Assessment as: (i) primary industries directly dependent on environmental resources, such as agriculture, forestry, fishing and mineral extraction; (ii) industries that are dependent upon a high quality environment, such as tourism, recreation and leisure; (iii) conservation organisations, government agencies and local authorities, which help to create quality of life and attract investment; (iv) businesses focusing on environmental technologies (waste management, water purification and sustainable energy).*

200. As is discussed below, different options for Bill implementation will be associated with differing extents to which these benefits will be realised. This extent is set out qualitatively in this appraisal, but further attempts to calculate changes in value more precisely are not considered robust. Therefore, no attempt is made to estimate the proportion of these figures that will be facilitated by the proposals in Part 1 of the Bill.

Option 2: Delivery of area statements in a way which focuses on the priorities identified in the NNRP (preferred).

State of Natural Resources Report (SoNaRR)

201. SoNaRR will provide an evidence base at a national level, which will help to inform future NNRP and delivery on an area basis. By doing so it will ensure that the health and functioning of natural resources and the resilience of ecosystems which will enable the delivery of social, economic and environmental well-being without compromising the ability of future generations. It is expected that the variation in resilience that is attributable to SoNaRR will form only a small part of this total benefit of an improved resilience of Wales' ecosystems, and the increase in benefits will only be negligible as NNRP is informed by a SoNaRR which is informed by area statements that are more aligned to ecological boundaries/local natural resource issues. As above, the improved resilience of Wales's ecosystems is explored for the natural resource proposals as a whole, and can be found under the heading 'Overall benefit from improved resilience of Wales' ecosystem services'.
202. It is also anticipated that SoNaRR may provide additional, non-monetised, benefits to other public bodies in that it will assist them in accessing socio-economic data to inform their obligations in sharing information.

National Natural Resource Policy (NNRP)

203. NNRP will provide a national level policy for the sustainable management of natural resources. It will ensure that social and economic benefits that derive from natural resource management are properly identified and factored into decision making alongside environmental benefits in a way that will ultimately help to improve the resilience of Wales' ecosystems. It is anticipated that the variation in resilience that is attributable to NNRP is a small part of the benefit of an improved resilience of Wales' ecosystems. The benefit of an improved resilience of Wales' ecosystems is explored for the natural resource proposals framework as a whole, and can be found under the heading 'Overall benefit from improved resilience of Wales' ecosystem services'.
204. NNRP also may also lead to the (non-monetised) benefits of greater efficiency for other public bodies, and co-ordination of funding programmes for funders.

Area statements

Improved Resilience of Wales' ecosystems

205. The expectation is that the Bill will facilitate greater integration of natural resource management than under the baseline, leading to improved outcomes (e.g. properties at risk of flooding). As set out by UKNEA (2011, p53)⁵⁵ targeted strategic planning based on integrated information will enable long term risks to natural resources, such as those identified in UKNEA (2011) and State of Nature (RSPB, 2013), to be identified and minimised through better decision making.
206. An example of strategic planning is set out in the Lawton review (2010) which makes the case for ecological networks to be created through targeted ecosystem restoration, in order to increase the resilience and productivity of the natural environment. Examples of an integrated approach exist from other nations (New Zealand, Australia and Canada) and substantial literature exists on the application of the ecosystems approach in policy and delivery, as reviewed under the Living Wales programme. It is expected that the improvement in resilience that is attributable to an area based approach alone will form only part of this total benefit.
207. Area statements may also lead to other (non-monetised) benefits, such as improved efficiency for other public bodies, NRW, and private/third sector, greater coordination of funding programmes, and informing other delivery plans.
208. Long term benefits (50 - 100yrs) to ecosystem resilience are at risk with faster implementation as the investment in staff training/numbers, collaborative processes and data monitoring and collection efforts is undertaken quickly without learning from other areas i.e. in selection of appropriate scales, thereby risking the possibility that sustainable natural resource management is undertaken in a sub-optimal way. Short term benefits are higher with faster implementation as the staffing structure is in place earlier.
209. Slower implementation means short term benefits are not realised and longer term benefits are at risk as area statements may fail to gather momentum.

Land Management Agreements

210. Land management agreements will contribute indirectly to the improved resilience of ecosystems in Wales as part of the proposals in Part 1 of the Bill. For example this could include opportunities to use land management agreements to further nature based solutions applying them as an alternative measure to manage flood risk, including to address specific resilience risks identified in the 2012 UK Climate Change Risk Assessment.

⁵⁵http://www.google.co.uk/url?url=http://archive.defra.gov.uk/environment/natural/documents/UKNEA_SynthesisReport.pdf&rct=j&frm=1&q=&esrc=s&sa=U&ei=EUMAVcqwN47bParygPgE&ved=0CCkQFjAH&usg=AFQjCNEW_IslNurmPeEsU2g4IUtXt3f4OA

211. This is particularly relevant in the context of the resilience of ecosystems, which acknowledges that in order to achieve and maintain any substantial benefits to the environment, long-term arrangements are usually needed.
212. The proposal sets out that if the land is sold, future owners will be under the same obligations and restrictions in relation to how they use the land. The benefit of this approach means that the requirements of the agreement will continue to be met.
213. For example, if NRW enters into an agreement with a land owner to plant and maintain trees in order to help reduce the risk of flooding in the area and NRW agree to reimburse the costs of doing so, then any future owner will be under a duty (in return for reimbursement of their costs) to continue to maintain those trees, therefore contributing to the sustainable management of natural resources.
214. It is expected that the benefits from implementing the powers in relation to land management agreements will form part of the total benefit of the Bill.

Experimental Schemes

215. A key benefit of this proposal is to provide evidence to support NRW to undertake an integrated approach to natural resource management, by trialling the new ways of working which it demands. The purpose of trialling an approach would be to provide a robust and consistent evidence base to be drawn upon in the development and delivery of NRW's future programmes and initiatives. The information will help NRW identify key natural resource opportunities and constraints to aid investment and planning decisions.
216. Experimental schemes enable NRW to undertake, support or commission research and also experimental or innovative schemes, where they are a means to trial new approaches to the delivery of their obligations under legislation in a way that can help them to meet their overarching purpose of achieving the sustainable management of natural resources. The benefits derived from this approach will help NRW to facilitate opportunities for innovative ways of working; to support new markets in environmental services and create the potential for market growth and green jobs in environmental sectors. In doing so, the powers to trial experimental schemes aim to facilitate the realisation of the long term environmental benefits identified through sustainable managing Wales' natural resources. These benefits derived from experimental schemes will contribute indirectly to the improved resilience of ecosystems in Wales. Evidence collected from the undertaking the trials will help to trial the development or application of new methods, concepts or techniques to deliver on NRW's actions. This may include new administrative, technical, or scientific approaches to achieving this outcome.
217. An illustrative example of this could be where NRW may seek to trial new approaches to develop statutory codes of practice that can identify minimum standards for certain activities, without the need for permitting or licensing and which can deliver the same or improved standard of performance. NRW may

wish to undertake a trial in a particular area covered by an area statement to identify the role of natural resources to assist in flood alleviation (for example through the role of peatlands).

218. A further example is illustrated by the Pumlumon project, which is hosted by Montgomery Wildlife Trust, covers an area of 40,000 hectares of mid Wales containing 250 farms, 15,000 inhabitants and five river catchments which supply water to four million people. The project is implementing an ambitious landscape strategy aiming to forge new partnerships between conservation, farming, forestry and tourism to restore natural habitat and support a thriving sustainable local economy for future generations.
219. It aims to do this by focusing on measures to support the return to a more natural landscape by reducing agricultural intensity and diversifying practices to support a more resilient community. This includes the re-wetting of bogs to sequester carbon and store water to reduce flood risk, promoting local grazing schemes to improve biodiversity, and supporting farmers in diversifying stock (sheep to cattle) production, and a range of schemes to enhance biodiversity and improve access and tourism to increase visitor spend and local income. There is also a strong focus on involving local communities in the area and provision of training to improve local skills and diversify local business. Montgomeryshire Wildlife Trust acts as a broker for land managers to provide multiple ecosystem services funded through various private and public finance streams (including RDP and Glastir). In most examples private funding is generally not linked to an established market.
220. Preliminary estimates suggest that the project could generate almost £23m over 10 years and has a cost benefit ratio to support further public and private sector investment. This includes benefits to outdoor recreation of £7.6 million, carbon reduction of £6.2 million, historic landscape of £2.8 million, flood storage of £2.1 million, water quality of £1.6 million and biodiversity £1.4 million⁵⁶.
221. Other (non-monetised) benefits that may arise as a result of more innovative approaches include improved cost efficiency for NRW, other public sector bodies, and the third and private sectors, and greater coordination of funding programmes and new funding streams.

Option 3: Delivery of full area statements across a small number of areas

State of Natural Resources Report (SoNaRR)

222. While this option is expected to deliver some of the benefits identified under Option 2, the benefits (more sustainable/resilient ecosystem service outputs) are expected to be lower as SoNaRR would be less representative of spatial differences in the opportunities and risks offered by natural resources in Wales.

⁵⁶ Natural World (2009) Living Landscapes: The most important hill in Britain... Available at <http://www.montwt.co.uk/images/user/Pumlumon%20nat%20world%20article%202010.pdf>, Accessed 6/1/14.

National Natural Resource Policy (NNRP)

223. Under this option there are fewer areas producing area statements. This means that the NNRP and SoNaRR is informed by fewer detailed area statements. It is expected that this might result in lower benefits (more sustainable/resilient ecosystem service outputs) as the NNRP would be less responsive to spatial differences in across Wales.

Area statements

224. Option 3 seeks to minimise costs. It is assumed to be based on only 3 area statements; therefore a significant fall in the benefit associated with national natural resource planning is expected, compared to Option 2.

225. Overall, the variation in the size of benefits could be significant; however, as highlighted above, it is difficult to estimate these benefits in a robust way. In order for environmental benefits to exceed monetised costs under Option 3, only an increase of 0.002% in the estimated annual value of the environmental economy in Wales would be required.

Option 4: Full delivery of detailed area statements across Wales

State of Natural Resources Report (SoNaRR)

226. A greater coverage of detailed area statements will mean that the SoNaRR is developed and coordinated with area statements that encompass all local natural resource issues. It is expected that this might result in a rise in benefits (more sustainable/resilient ecosystem service outputs) relative to Option 2 as it enables area statements to be more responsive to spatial and local differences in both the opportunities and risks offered by natural resources in Wales.

National Natural Resource Policy (NNRP)

227. Under this option, there is greater detailed coverage within area statements of the opportunities within each local area. This will mean that the NNRP and SoNaRR are developed and coordinated with area statements that are more aligned to local natural resource issues. It is expected that this will result in a rise in benefits (more sustainable/resilient ecosystem service outputs) as the NNRP is more responsive to spatial differences in the opportunities and risks offered by natural resources in Wales.

Area statements

228. Greater detailed coverage within area statements will mean that the area statements are more aligned to local natural resource issues. It is expected that this might result in a rise in benefits (more sustainable/resilient ecosystem service outputs) as it enables more responsive action to spatial differences in the opportunities and risks offered by natural resources in Wales.

229. As for Option 3, the variation in the size of benefits could be significant; however, as highlighted above, it is difficult to estimate these benefits in a robust way. In order for environmental benefits to exceed monetised costs under Option 4, only an increase of 0.004% to 0.006% in the estimated annual value of the environmental economy in Wales would be required.

Part 1: Summary of the Preferred Option

230. As confirmed earlier in this chapter, the costs and benefits of introducing the Bill vary according to how the provisions are implemented which are not prescribed on the face of the legislation. The options included are therefore for illustrative purposes – the Bill provisions having been drafted to allow flexibility in order to implement natural resource management in the most efficient way.
231. The costs of preparing and producing SoNaRR will fall on NRW. The costs are not expected to vary significantly between the options or according to the number of area statements. Similarly, the costs of preparing and producing the NNRP fall on Welsh Government and are not expected to differ greatly between the options presented.
232. The policy intention for area statements is that they are determined on an ecological scale, and delivered in a way that focuses on the priorities set out in NNRP at a local level. For the purposes of the RIA, a range of options has been presented. This enables an assessment to be made of the relative cost-effectiveness of the alternative approaches.
233. Option 3 is based on implementing detailed area statements across a small number of areas associated with achieving partial coverage of the priorities identified in the NNRP. This option, therefore, would give rise to the lowest implementation costs but would not achieve full identification of opportunities to deliver priorities in NNRP nor deliver the full range of lasting benefits that might be possible at the local level.
234. Option 4 is based on the full delivery of detailed area statements across Wales in a way that maximises the overall benefits. The additional depth of all the area statements under this option means that it is the most expensive of the options considered.
235. Option 2 aims to balance the level of depth required for the effective implementation of the NNRP priorities with the cost of delivering detailed area statements. This option is considered to be marginally more cost-effective than Option 4 and, against the backdrop of the current financial climate, is presented as the preferred option.

Part 1: Summary of costs

236. Table 5 below summarises the main (present value) costs identified in the RIA for Part 1 of the Bill. These are the quantified additional costs for the impacts that are considered of significance (i.e. given a red status), relative to a 'do

nothing' baseline in which the Bill is not introduced (Option 1). It is very difficult to identify what the impacts of the Part 1 provisions will mean to individual organisations, and to quantify this in cost terms, therefore, the summary of costs has been produced to capture a best estimate of the additional costs.

237. The costs are presented in ranges based on the 3 options.
238. The majority of costs fall under the baseline, as a requirement of the ongoing delivery of the integration of NRW and as a consequence of Well-being of Future Generation (Wales) Act requirements in particular. The obligation on public bodies to collaborate under the Well-being of Future Generation (Wales) Act 2015 is part of the reason why collaborative governance costs are zero for example). Some costs may be further absorbed as part of the work to look at process improvements and improved efficiency – however the full detail on this is unknown at this stage. Other costs have not been prioritised as significant to warrant a more detailed quantitative analysis including all costs that fall on parties other than NRW and the Welsh Government (other public bodies, private and third sector).. Though the range for the SEA is from £202,600 to £303,900 (present value) under Option 2, the process of producing SoNaRR, NNRP and area statements will form a similar process and therefore the costs of the SEA are likely to be to the lower end of the range stated. It should also be noted that there are several sources of uncertainty impacting on the results of this analysis as outlined in the key sensitivities, assumptions and risk section above.
239. The options summary table above (table 4) show expected additional costs of around £3.77m to £4.93m over 10 years, but potentially up to £7.49m under the highest implementation scenarios. In present values these figures are £3.40 to £4.51m over 10 years, but potentially up to £6.75m, as shown in table 5 below.

Part 1: Summary of Benefits

240. Regarding the potential benefits that will arise from the implementation of the Bill, it has been illustrated above that a 20% increase in the value of the environmental economy in Wales could lead to benefits of over £2 billion per year. However, it must be stated that it is not possible to determine what proportion of these benefits will be directly as a result of the Bill. This creates a high level of uncertainty in attempting to quantitatively assess the benefits of the Bill.
241. Only a small percentage increase in the estimated annual value of the environment in Wales is however required over 10 years for benefits of the Bill to outweigh the monetised costs. These percentage increases are all less than 0.01% for all options considered. In addition to this there are other (non-monetised) benefits, such as cost efficiencies and greater resilience to climate change, which suggest it is highly likely that benefits on the Bill will outweigh the costs. The options analysis illustrates that the variations in this benefit relating to how the Bill is implemented could potentially be significant.

Table 4: Summary table of the main quantified present value costs of the proposals in Part 1 of the Bill

Policy Area	Action	Who?		Cost (£m) by Scenario (PV over 10 years) compared to 'do nothing' baseline (Option 1)					
				Option 3. Smaller no. of areas		Option 2. Medium no. of areas (preferred option)		Option 4. Larger no. of areas	
				Low	High	Low	High	Low	High
National Natural Resource Policy (NNRP)	Preparation and Production of NNRP	Welsh Government		£0.21m	£0.21m+	£0.21m	£0.21m	£0.21m	£0.21m+
State of Natural Resources Report (SoNaRR)	New Integrated ecological and social science evidence analysis for SoNaRR	NRW	Additional staff	£0.44m	£0.44m+	£0.44m	£0.60m	£0.44+	£0.60m+
			Training (staff)	£0.03m	£0.03m+	£0.03m	£0.55m	£0.03m+	£0.55m+
			Training (consultants)	£0.02m	£0.02m	£0.02m	£0.02m+	£0.02m+	£0.02m+
			Analytical Tools	£0.09m	£0.09m+	£0.09m	£0.19m	£0.09m+	£0.19m+
Area Statements	Planning, Preparation and Roll Out	NRW		£1.11m	£1.22m	£1.11m	£1.22m	£1.11m	£1.22m
	Collaborative Governance	NRW		£0.00m	£0.00m	£1.22m	£1.22m	£2.44m	£2.44m
	New area-based/integrated evidence required	NRW		£0.00m	£0.00m	£0.00m	£0.00m	£0.24m	£0.60m

	New integrated ecological and social science evidence analysis for area statements	NRW	£0.09m	£0.22m	£0.10m	£0.19m	£0.15m	30.36m+
	SEA Sustainability Appraisal of Area Statements	NRW	£0.06m	£0.08m	£0.20m	£0.30m	£0.37m	£0.55m
Total			£2.03m	£2.30m+	£3.40m	£4.51m+	£5.08m+	£6.75m+

Part 1: Biodiversity Duty

Options analysis

242. Option 1 - Do Nothing (Baseline): This option would retain the *status quo* and maintain the current approach to biodiversity in Wales with regards to biodiversity conservation. Public authorities would continue to ‘have regard to’ biodiversity under section 40 of the Natural England and Rural Communities Act 2006 (“NERC Act 2006”). Public authorities would continue to consider biodiversity when carrying out their functions, with no mandatory requirement to report on progress.
243. Option 2 – Introduce an enhanced duty: This option looks to replace the existing duty in section 40 of the NERC Act 2006, with an enhanced duty on public authorities with functions in relation to Wales. The Bill will place a duty on those public authorities to seek to maintain and enhance biodiversity and in so doing seek to promote ecosystem resilience. The new duty will support the delivery of the sustainable management of natural resources by assisting ecosystem resilience as biodiversity drives the functioning of ecosystems. In addition, the duty will complement the actions of public bodies under the Well-being Future Generations (Wales) Act 2015 in contributing to the well-being goals. The Bill will also place a requirement on public authorities with functions in relation to Wales to report on the progress they have made to meet this duty.
244. Option 2 emphasises biodiversity as both an essential resource for sustainable management of natural resources and a measure of success in delivering sustainability.

Part 1: Costs

245. One of the key requirements underpinning the approach to developing the Bill has been to minimise additional burden on organisations by seeking to make best use of existing partnerships and tools rather than establishing new and separate mechanisms. The proposed biodiversity duty has been developed to meet this principle; this RIA helps to demonstrate the benefit of fully integrating the existing duty.

Option 1 – Do Nothing

246. On introduction of the duty under the NERC Act 2006, it was estimated that there was no net financial cost⁵⁷. A review of the duty was undertaken in May 2010⁵⁸ but did not include an analysis of the cost of the duty to public authorities. This review however, did state that whilst costs maybe associated with staff time, there were cost savings in relation to reduced management costs (for example reduced mowing frequencies)⁵⁹.

⁵⁷ DEFRA, *Draft Natural Environment and Rural Communities Bill, 2005, paragraph 301, page 59*

⁵⁸ Entec for DEFRA,

⁵⁹ *Ibid, page 40*

247. Currently, there is no information to indicate that there are significant financial costs to public authorities in Wales as a result of their obligations under the NERC Act 2006.
248. However, information is available on some of the actions taken by public authorities in relation to biodiversity. Each local authority has appointed a biodiversity champion. Twenty-four Local Biodiversity Action Plans (LBAP) are available across Wales. These are for each of the local authority areas and for 2 of the National Park Authorities, with one other National Park contributing to one of the local authority areas. The partnerships to manage the LBAPs are run by local authority staff (Ecologists / Biodiversity Officers). Local authorities publish reports on how they meet the actions within their respective LBAP. Some local authorities are very proactive, producing reports annually and some also publish information on specific projects.
249. Local authorities and National Park Authorities in Wales currently voluntarily report on biodiversity activities. However, there is no standard mechanism by which other public authorities report on how they meet their obligation under the NERC Act 2006.

Option 2 – introduce an enhanced biodiversity duty

250. It is not anticipated that the enhanced duty will result in net financial costs. There is a lack of comparative data from similar approaches taken in other devolved administrations in order to establish a baseline position in relation to the current actions and behaviours – as a result even a broad estimate of the likely additional costs cannot be provided. Both Scotland⁶⁰ and Northern Ireland have introduced a similar duty in legislation and have estimated that their duty to ‘further biodiversity conservation’ was cost neutral.
251. One of the aims of the proposal is to ensure that the duty to maintain and enhance biodiversity is not an additional burden on public authorities, but instead, an integral component of their existing functions. The intention is to build upon the wide ranging initiatives and efforts of public authorities in Wales, some of which are outlined under Option 1.
252. A subset of the public authorities covered by the duty, will also fall under obligations in the Well-being of Future Generations (Wales) Act 2015 to carry out sustainable development by contributing to the achievement of the seven well-being goals. This includes a requirement to develop the well-being objectives. Contained within the seven well-being goals are descriptions of ‘a resilient Wales’, which is a ‘*nation which maintains and enhances a biodiverse natural environment...*’. These bodies will be required to contribute to achieving all the well-being goals and the enhanced duty will complement actions by public bodies.

⁶⁰ Scottish Executive, *Nature Conservation (Scotland) Bill, Financial Memorandum, 2003, s352*

253. There should be no net financial cost to public authorities as a result of enhancing the duty. The duty should lead to greater efficiency as a result of streamlining public authorities' efforts for maintaining and enhancing biodiversity, together with better management of biodiversity related risk, for example through incorporating ecosystem services properly in land management e.g. for mitigating flood risk.
254. Under the Bill, public authorities are required to report every three years on what steps they have taken to comply with their statutory obligations. There is no requirement that this should be in a specific format or document and can be incorporated in another suitable report. The intention is that an authority can therefore report in the most appropriate and effective manner available to them, with those coming under the framework of the Well-being of Future Generations (Wales) Act able to integrate their reporting.
255. There are approximately 100 public authorities in Wales. A few public authorities currently report voluntarily on some of their activities via the Welsh Government's Environment Strategy Action Plan Annual Reports. These are local authorities, national park authorities and the Welsh Government.
256. With the introduction of the Well-being of Future Generations (Wales) Act 2015, there is therefore an opportunity to amalgamate reporting requirements. The intention is that those bodies that fall under both the Well-being of Future Generations (Wales) Act 2015 and the revised biodiversity duty will be able to report on how they are delivering the biodiversity duty within their reports setting out how they are meeting their well-being objectives. This will apply to around 45 bodies including local authorities, local health boards, national park authorities and NRW. For these bodies, this will also ensure that the requirement is joined-up and embedded within the Well-being of Future Generations (Wales) Act 2015 obligations. The costs associated with the Well-being of Future Generations (Wales) Act 2015 are covered in the RIA for that Bill.
257. For the remaining public authorities not covered by the Well-being of Future Generations (Wales) Act 2015, it is expected that they could comply with the reporting requirements through existing reporting mechanisms, for example in any annual reports that they produce.

Part 1: Benefits

258. Biodiversity drives the functioning of our ecosystems, which in turn deliver a range of essential services to society. Where biodiversity is lost, it affects the capacity of ecosystems to adapt to changes and disturbances. Biodiversity is essential, therefore, to sustaining our ecosystems. In turn, this enables ecosystems to provide the vital services (like clean air and fresh water) on which our society depends.

Option 1 – Do Nothing

259. Section 40 of the NERC Act 2006 requires that all public authorities in England and Wales to have regard to the purpose of conserving biodiversity in carrying out their functions. Since its coming into force, some limited success has been achieved through the existing duty, for example the introduction of a number of local authority biodiversity champions and establishment of voluntarily reporting on the duty by local authorities and national park authorities.
260. This approach would not deliver the recommendation of the National Assembly's Sustainability Committee Inquiry into Biodiversity that the Welsh Government should adopt a strategic ecosystem approach to the management of biodiversity.
261. Not extending the duty will increase the risk of a continuing loss of biodiversity in Wales. Declining biodiversity in turn increases the risk of declining ecosystems and consequently declining quality of ecosystem services and therefore a loss of economic, social and environmental benefits. In turn this can increase the risk of not meeting the well-being goals as provided in the Well-being of Future Generations (Wales) Act 2015. This approach does not provide a method of tracking progress on the duty.

Option 2 – introduce an enhanced biodiversity duty

262. This option would lead to greater efficiency as a result of streamlining public authorities' efforts in maintaining and enhancing biodiversity across their functions as well as promoting the resilience of ecosystems.
263. As the reductions in ecosystem services are associated with declines in habitat extent or condition and changes in biodiversity, improvements in biodiversity can help to strengthen ecosystems and the services they provide for example clean water, good air quality, crop pollination as well as providing habitats for wildlife. Enhanced variability in biological resources can help to strengthen the system integrity of ecosystems provide improved services, which can help mitigate the impacts of climate change but also help in flood alleviation.
264. The enhanced approach can help to manage biodiversity in an inclusive way that benefits the entire local community and ecosystem, and which does not rely on simply protecting individual sites or species. Enhancing the duty has the potential to provide cost efficiency savings in particular, arising from the collaborative approaches that duty will encourage. Further the intention is to lead to greater integration of biodiversity into general policy across all functions. Maintaining and enhancing biodiversity as part of the decision-making process in all aspects of a body's activities should lead to improved awareness of biodiversity and its role in ecosystem resilience and to improved well-being.

265. There are also potential economic and social benefits. The right mix of ecosystem services and the formulation of new markets, over the long term, will help to boost green growth and job creation.
266. The duty on public authorities will result in the improved conservation of biodiversity, species and habitats, leading to improved physical and mental health and well-being. Improving regulatory services will provide more opportunities to make improvements to the health and recreation of those poorest members of the community, such as improved air quality and open access to green space i.e. parks and gardens. Evidence of the health benefits is covered in the Chief Medical Officers Report 2013-14⁶¹.
267. Enhancing the existing duty will support delivery of the well-being goals under the Well-being of Future Generations (Wales) Act 2015.
268. Reporting duty will ensure tracking of progress on the delivery of the duty.

⁶¹ <http://wales.gov.uk/topics/health/cmo/publications/annual/2014-report/?lang=en>

Part 2: Climate Change

Options Analysis

269. Two options have been considered in relation to Part 2 of the Bill. These options include legislating for climate change targets within the Bill or maintaining the current policy approach where the Welsh Government's climate change ambitions and targets are delivered through a non-legislative strategy.

Outline of Benefits and Costs

270. The following section contains a discussion of the illustrative costs and benefits of the two options proposed to reduce Wales' emissions. The most robust economic analyses of the costs and benefits of reducing emissions have been done at a global and UK level. As such, where appropriate, global and UK analysis has been used to inform the discussion. Where Welsh specific data or reports are available then these are quoted.

Option 1 – Do Nothing - Continue to set out the Welsh Government's climate change aspirations in a non-legislative strategy document

271. The current Climate Change Strategy sets out the Welsh Government's ambition on climate change and confirms the emission reduction targets to which the Welsh Government has committed. While these targets are not legally binding, this approach sits within the UK Climate Change Act 2008 legislative targets and the Welsh Ministers' obligations under the same Act.
272. Option 1 proposes that the current approach is continued with no new statutory targets set.

Option 2 – Statutory Framework for Climate Change Targets

273. The development of the Bill provides the opportunity to put the Welsh Government's specific climate change targets onto a statutory footing. This option would involve taking an approach akin to the UK and Scottish Climate Change Acts, with interim targets and a carbon budgeting approach underpinning the delivery within a long-term target for 2050.
274. In addition this option would make provision for the Welsh Ministers to set a series of five yearly carbon budgets, similar to a financial budget, which would require a reduction in emissions on a downward trend in line with the overall 2050 target.

Part 2: Costs

275. The financial implications related to climate change targets and carbon budgets are primarily dependent on the target and budget level set, as opposed to the selected implementation method.
276. For Option 1, it is assumed that by maintaining the current approach, Wales will continue to be bound by the current UK and EU 2050 targets for 2050: an 80% reduction (on 1990 levels) by 2050. Similarly, the proposals set out in Option 2 - to legislate for Wales-specific climate change targets - will help focus delivery of Wales' contribution to the UK and EU 2050 climate change targets.
277. In general terms, therefore, the implementation of either approach in itself does not introduce additional costs to stakeholders. For Option 2, however, delivery costs are largely determined by the level at which carbon budgets are set. The Bill seeks to put in place a requirement on the Welsh Ministers for setting of carbon budgets, but the level at which these will be set will be determined by secondary legislation. At that point, the costs and benefits will need to be carefully evaluated and independent advice sought. That said, as carbon budgets would be set on a gradually declining trajectory, in line with the current UK and EU 2050 targets - the costs and benefits are arguably already accounted for in delivery of Wales' share of the UK 2050 target as part of the existing strategic commitment.
278. The following information presents the broad economic case for action on climate change which underpins the 2050 target which is central to both delivery options. Specific costs associated with developing the framework for each option are considered independently at the end of this section.
279. The growing evidence from international reports like the IPCC Assessment Reports show that embedding climate resilience and climate mitigation is likely to outweigh the costs of non-action in the medium to long term. The European Commission for example calculates that the cost of non action on Climate Change is €650 billion per year or equivalent to 5-6% of Europe's annual GDP, whereas the cost of action is 1-1.5% GDP.
280. The Impact Assessment accompanying the introduction of the UK Climate Change Act (2008), which draws on both the Stern Review and the analysis conducted for the 2007 UK Energy White Paper, analysed the macroeconomic costs for an 80% CO₂ reduction target for the UK. The analysis indicates that the potential long run cost of an 80% CO₂ target is estimated to be between 1.1% and 2.6% of GDP by 2050. These results are comparable to those in the Stern Review, which estimated that the long run costs of global action to stabilise GHG concentrations at 550ppm CO₂e are likely to be around 1% of global GDP by 2050, within a range of +/-3%. This range is substantially lower than the expected costs of doing

nothing to reduce climate change, as estimated by Stern to be between 5% and 20% of global GDP.

281. On 7 October 2008, the Committee on Climate Change issued its advice on the level of emissions reductions recommended for the UK. It also estimates the costs for an 80% reduction in greenhouse gases to be between 1%-2% of GDP in 2050 and states that the costs to the UK of this level of emissions reduction can be made affordable with appropriate policies and trajectories. Later in the same year the Committee on Climate Change published the report “Building a low-carbon economy”. This reinforced the estimated cost of delivering an 80% greenhouse gas emissions target in 2050 in the UK at around 1- 2% of GDP in 2050. The Committee on Climate Change issued an updated report in 2013 which showed that delaying action beyond 2030 entailed additional costs compared with early action of £100 to £200 billion for the UK.
282. Whilst the costs ranges vary slightly, these studies suggest that the costs of action, particularly on the global scale, are far lower than the expected costs of inaction on climate change. The costs of inaction on climate change are based on EU and global estimates and whilst these may provide a guide for costs to Wales, they are not a direct proxy. In contrast, the cost of action estimates are for the impact on the UK as a whole and they provide an appropriate proxy for the cost for Wales, as the Welsh and UK economies share broadly similar structures. These costs of action will apply across the whole of the Welsh economy – Welsh Government, local authorities, public bodies and Welsh businesses. These costs will be distributed across producers and tax payers through higher input prices for goods and public services, and by consumers through higher retail prices, leading to lower overall GDP of the order highlighted in the previous paragraph. Precisely where these costs will fall and how they will impact on output by sector will depend upon the paths chosen to deliver the emissions reductions, and specifically for Option 2 the level at which Carbon Budgets are set.

Key Cost Uncertainties and Sensitivities

283. In order to model the long-term cost of emission reductions for the UK to 2050, a number of assumptions need to be made and there are a number of uncertainties within the framework. Key uncertainties include:
- Selection of most effective emissions reductions pathway.
 - The international commitment to reduce GHG emissions, including the relative effort between countries and regions.
 - Cost and availability of low-carbon or energy efficient technologies.
 - Relative costs of fossil fuels.

Administrative costs of implementing the carbon target framework

284. The UK Greenhouse Gas Inventory is compiled in line with international guidance from the IPCC and is the basis for the current annual report on climate change. As a critically reviewed source of data, it is a suitable basis for the measurement of progress against carbon targets in Wales and provides emissions data for the sectors covered under the UK Carbon Budget. For both options considered in this assessment, the GHG inventory would provide the required emissions data and neither approach would carry additional data costs. However, implementation of a full carbon budget system would require additional provision for carbon accounting and trading systems as discussed below.

Option 1 – Do Nothing - Continue to set out the Welsh Government’s climate change aspirations in a non-legislative strategy document

285. Current emissions targets for Wales confirmed in the Climate Change Strategy for Wales only detail the expected emission reduction delivery up until 2020. However, their delivery sits within the wider UK and EU decarbonisation framework of an 80% reduction by 2050, and Wales is expected to make its contribution to these targets. As such, beyond 2020 Option 1 would still require delivery of a 2050 emission reduction contribution. This could be achieved as a continuation of the current strategy approach and would not require a major new framework to be put in place. Therefore, in terms of the financial implication associated with the development of Option 1, it is already covered within existing budgets as part of the governments existing requirements.

Option 2 – Statutory Framework for Climate Change Targets

286. On the basis of the evidence from the UK Government’s staffing model for the development of the UK carbon budgets, it is likely that additional resource requirements would be required at the time that the budgets are developed and subsequently at each review point. A small amount of resource will be needed in each department and administratively to coordinate the process (currently within the Natural Resources Department). The Department for Energy and Climate Change and the lead Whitehall departments adopt a cyclical pattern where increased resources are required at the start of a budget cycle for the appraisal of actions to meet the emissions reductions proposed under each carbon budget. However, over time this resource requirement has been absorbed into business as usual of each department. Based on this experience, the estimated administrative costs would amount to a core team of up to five to coordinate the process plus a temporary increase in staff time within departments to administer and plan for setting of the carbon budgets. Assuming these 5 core staff are one Grade 7, two SEOs and two HEOs, average annual administration costs are estimated at £254,500. The costs to coordinate the process would be secured through the existing budgets.

287. In addition to staff costs the following costs are expected to arise from the proposed legislation associated with Option 2:

- To ensure the careful evaluation in introducing formal carbon budgets, in particular of the economic impacts, it would require independent advice on the level at which carbon budgets should be set. Although this can be provided by the UK Committee on Climate Change, seeking appropriate advice may carry a cost. That said, it is likely that even without moving to a carbon budgeting approach, independent advice would be needed on the appropriate climate change targets to adopt beyond 2020 (under Option 1). The implementation of a carbon budget framework in itself does not therefore introduce additional costs to stakeholders, but the level at which targets beyond 2020 are set would need to be carefully evaluated. That said, assuming that carbon budgets were set in line with the current UK and EU 2050 targets, the economic costs and benefits are arguably already associated with the delivery of Wales' share of the UK 2050 target.
- Putting a budgeting process in place will of course require a detailed assessment of the constraints and opportunities within each sector and would need to be calculated to reduce emissions at an economically credible rate akin to the UK budgeting process. The UK Committee on Climate Change set up by the Climate Change Act 2008 was created in order to provide such advice and would therefore be able to advise on the approach. The estimated cost on initial advice would be a one off payment of around £43,500 and costs for progress reports of approximately £15,000 every 5 years. This totals £73,500 over 10 years. These figures still need to be confirmed and it still needs to be determined if it is additional to the existing funding already provided by the Welsh Government to the UKCCC. If the Welsh Ministers choose to exercise the option to establish an independent Welsh advisory body, to advise on setting Welsh emissions targets, it is estimated that this would cost in the region of £2.5m annually, based on estimates undertaken for similar purposes within the RIA (March 2009) for the Climate Change (Scotland) Bill. However, the nature of the advice required and the range of expertise necessary in such a body suggests that it would be difficult to save costs by adopting a scaled down operation for Wales. A Welsh advisory body may also risk duplicating work carried out by the UKCCC, and risk providing conflicting advice.

Part 2: Benefits

288. The following section presents the broad economic case for action on climate change which underpins the 2050 reduction target central to both options. Specific benefits associated with developing the delivery framework for each option are considered independently at the end of this section.

289. The benefits of reducing Wales' emissions and its contribution to global climate change are clear. These benefits, if global action is taken, include

reducing the risk of the most severe consequences of climate change: an increase in drought-affected areas and flood risk, major changes to ecosystem structure and function, decreased crop productivity and food production, increased coastal erosion, and health implications. The Stern Review on the Economics of Climate Change concluded that taking effective action to reduce global emissions is estimated to reduce the future impacts of climate change and in doing so avoid a reduction in global GDP of the order of 5-20%.

290. To deliver effective emission reduction will require a global effort and it is recognised that emissions in Wales only represent a small proportion of global emissions. However, Wales has committed to providing leadership in this area and our actions will help to influence overall global outcomes. This leadership must come from developed nations such as Wales because they have been responsible for the majority of the historic rise in GHG concentrations and generally have higher per capita emissions. They also have the necessary income levels and technological capacity to lead the necessary investment. Furthermore, given the overall commitment to decarbonisation those nations that move quickly may gain a competitive advantage and unlock the greatest opportunities.
291. The Stern Review states that tackling climate change is the pro-growth strategy for the longer term, as the transition to a low carbon economy will bring business opportunities. For example, global markets for low carbon energy products are estimated to be worth at least \$500 billion by 2050. A report published by the CBI Climate Change Task Force estimates that “if government agrees to an international framework to limit carbon emissions, the global market for climate change solutions could be worth \$1 trillion in the first five years. This is supported by the IPCC report which highlights that for growth to be at all possible, climate change action is likely to be a necessary component and the economic cost of non-action is likely to far outstrip the cost of transition.
292. Wales’ therefore has the opportunity to benefit from effective emissions reduction action and the options considered here can help to ensure Wales is positioned to take advantage of the opportunities associated with the transition and support the drive for green growth.

Benefits of implementing the carbon target framework

Option 1 – Do Nothing - Continue to set out the Welsh Government’s climate change aspirations in a non-legislative strategy document

293. Option 1 provides the least-cost administrative approach as it maintains the existing commitments and strategy and administratively is therefore already covered within existing budgets. Beyond 2020 there is no detailed strategy, and although delivery sits within the wider UK and EU decarbonisation framework of an 80% reduction by 2050, the pathway between 2020 and 2050 for Wales is not currently defined. Whilst this approach may provide additional flexibility in the rate at which emissions

are reduced it does not deliver the benefits for green growth and investment certainty gained by nations taking early and clearly defined action, as outlined below. Based on current performance there are significant risks to the delivery of our low carbon and emission reduction objectives by maintaining the current approach, as illustrated by not being on track to meet the 40% emission reduction target.

Option 2 – Statutory Framework for Climate Change Targets

294. This option involves setting a budget for carbon emissions, similar to a financial budget, which would require Welsh Ministers to reduce emissions on a downward trend in line with overall targets. This option more accurately reflects the nature of the challenge and links to the global carbon budget associated with limiting climate change to within the internationally agreed 2 degrees Celsius scenario. It would provide a clear means of identifying and highlighting the potential for emissions reductions across portfolios and public sector bodies. It would also crucially provide a focus to decision making in highlighting the need to balance a slower transition to low carbon in one area with accelerated progress elsewhere, to ensure that mitigation can be delivered in the most cost effective areas of our economy.
295. Setting out a clear pathway and a budgeting approach for Wales within the wider legislative framework has many benefits, not least in providing greater clarity for each sector and providing more detail on the respective contributions needed and the investment opportunities. Moving to carbon budgets will not only provide greater transparency, but also a clear pathway for the investment decisions that we are already taking in our programmes that extend beyond 2020.
296. A recent report from the United Nations Environment Programme⁶² highlighted how policy uncertainty can result in delays to the necessary investment. Clear targets could also reduce the risk that delivery does not happen with sufficient speed to meet the legislative commitments, react to the challenges and take advantage of the opportunities (in particular for jobs and growth) brought about by climate change.
297. Progress in Wales in relation to the waste sector highlights how targets can help to drive progress in the sector with higher recycling and related infrastructure developments now helping to create jobs in a growing Welsh green economy. Sales in the green economy contributed £5.5 billion to the Welsh economy in 2011/12, supporting over 41,000 jobs, and during the recession between 2009/10 and 2011/12 green economy jobs grew by around 2.4% and sales by around 9.3%. Clear climate change targets could provide an opportunity to give greater certainty for investment in green growth through a clearer pathway for decarbonisation. This could not only support the necessary transition in Wales but also

⁶² <http://www.unep.org/annualreport/2013/landing.asp>

position Wales competitively to take advantage of the global opportunities.

Part 2: Summary and Preferred Option

298. Option 2 provides the preferred option on the basis it that provides a more robust framework to achieve the desired emission reductions in Wales and will provide the best option to ensure that Wales is able to reduce its emissions early and avoid the higher economic costs associated with delayed action. As the preferred option, Option 2 could deliver the following key benefits to Wales:

- Provides long term predictability in order to encourage investment from the private sector and can therefore act as a stimulus for green growth.
- Clearly links to the UN's global carbon budget aimed at preventing catastrophic impacts or irreversible change and will help to promote the development of an international carbon trading mechanism.
- Allows flexibility, where a need for a slower transition in one area can be balanced with more rapid progress in another thus ensuring that mitigation can be delivered in the most cost effective areas of our economy.
- Clear climate change targets could provide an opportunity to give greater certainty for investment in green growth though a clearer pathway for decarbonisation. This could not only support the necessary transition in Wales but also position Wales competitively to take advantage of the global opportunities.
- Provides a clear means of identifying responsibility for delivery and gives a better focus to decision making than a generic overall reduction target.

Table 5: Summary table of key costs and benefits for preferred option

Policy area	Key Costs	Key Benefits
<p>Statutory Framework for the climate change targets.</p> <p>Key Assumptions:</p> <p>In order to model the long-term cost of emission reductions a number of assumptions need to be made. These include:</p> <ul style="list-style-type: none"> • The choice of emissions reductions pathway. • The degree of international commitment to reduce greenhouse gas emissions, including the relative effort between countries and regions. • The cost and availability of low-carbon or energy efficient technologies. • Relative costs of fossil fuels. 	<p>Monetised</p> <p>The implementation of legislative targets and a carbon budget framework in itself does not introduce additional costs to stakeholders, but is determined largely by the level at which targets are set. This would need to be carefully evaluated and may require the additional expert advice to be commissioned.</p> <p>On the basis of the evidence from the UK Government’s staffing model, it is likely that additional resource requirements would be seen on a cyclical pattern where actions are set out at the start and finish of a budget cycle, which over time has been absorbed into business as usual of each department.</p> <p>Estimated administrative costs would amount a core team of up to five to coordinate the process plus a temporary increase in staff time within departments to administer and plan for setting of the carbon budgets. This is estimated at an average annual cost of</p>	<p>Monetised</p> <p>The Stern Review on the Economics of Climate Change concluded that taking effective action to reduce global emissions is estimated to reduce the future impacts of climate change and in doing so avoid a reduction in global GDP of the order of 5-20%.</p> <p>The European Commission also calculates that the cost of non action on Climate Change is €650 billion per year or equivalent to 5-6% of Europe’s annual GDP, whereas the cost of action is 1-1.5% GDP.</p> <p>The Committee on Climate Change show that early action to reduce emissions can avoid costs in the region of £100 to £200 billion that may otherwise be incurred for delayed action (during the 2030’s) by the UK.</p>

	<p>£254,500.</p> <p>Additional independent advice on the level at which carbon budgets should be set, would be sought through the UK Committee on Climate Change (UKCCC). Based on the approach adopted in Scotland (under similar statutory requirements), the estimated cost on initial advice would be a one off payment of around £43,500. Progress reports would also be required and would cost approximately £15,000 every five years.</p> <p>These figures will need to be confirmed and determined if it is additional to the existing funding already provided by the Welsh Government to the UKCCC.</p> <p>The UKCCC currently provides the Welsh Government with an advice on climate change matters under the UK Climate Change Act – the current annual cost for this advice is £156,489.</p> <p>For the purposes of the RIA, the estimated additional potential costs have been included for illustrative purposes.</p> <p>The costs to coordinate the process</p>	
--	---	--

	<p>would be secured through the existing Natural Resources MEG.</p>	
	<p>Non-monetised The growing evidence from international reports like the IPCC Assessment Reports show that embedding climate resilience and climate mitigation is likely to outweigh the costs of non action in the medium to long term.</p>	<p>Non-monetised Legislative climate change targets provide the following key benefits:</p> <ul style="list-style-type: none"> • provide greater clarity and predictability for industry to plan effectively for, and invest in, a low-carbon economy; • ensure Wales is positioned to take advantage of the opportunities (in particular for jobs and growth) associated with the transition and support the drive for green growth • strengthen Wales' leadership internationally to help raise the ambition and urgency of collective action to tackle climate change and reduce climate impacts.

Part 3: Charges for Carrier Bags

299. There are 2 areas that the Bill provisions cover. The first is to extend the powers in the Climate Change Act 2008 to enable Welsh Ministers to set a minimum charge for other types of carrier bags in addition to single use carrier bags (SUCB) and the second is to place a duty on sellers of carrier bags subject to a charge to apply the net proceeds of the charge to good causes as specified in Regulations. In addition, the Bill will also remove the current restriction that the net proceeds of the carrier bag charge may only be applied to environmental good causes and extend their application to any good cause.
300. For the purpose of this Regulatory Impact Assessment the impact of each proposal has been assessed against 4 possible options and is based upon modelling carried out for the Welsh Government by Ricardo – AEA⁶³ and further analysis by the Welsh Government. A preferred option has been identified for both provisions; however it should be noted that in carrying out the analysis of the options below, it is assumed that these regulation making powers will be used. This assumption is only made in order to analyse the potential impacts of introducing any of the charges highlighted below and to demonstrate the different ways that the proposed powers could be used.
301. For the first provision it was clear that of all of the options considered, the preferred option would be to apply a differentiated minimum charge on different types of re-useable bags including SUCBs. If Regulations were then to be made, sub-option 4iii would be the preferred charging regime at this moment in time, as it has the highest Net Present Value overall. The carrier bag charges identified for the analysis of this provision, or any variation thereof, would only be exercised through Regulations if future evidence suggested that this course of action was necessary. At that point a full and detailed Regulatory Impact Assessment would be undertaken on each option available to the Welsh Ministers.
302. In terms of the second provision, Option C is the preferred option. This option amends the Climate Change Act 2008 to remove the limitation in paragraph 4A so that when the Welsh Ministers make provision in regulations, to require sellers to apply the net proceeds of the charge, the sellers will not be limited to applying those net proceeds to environmental good causes only.

⁶³ Ricardo- AEA (2014), *Cost Benefit Analysis of Bags for Life Charges in Wales, Report to the Welsh Government (2014)*

Extending Welsh Ministers' regulation making powers in the Climate Change Act 2008 to enable them to set a minimum charge for other types of carrier bags in addition to single use carrier bags (SUCB)

303. At this stage it is important to set out the bag types which are being looked at in the below analysis. The types of bags that are referred to below are as identified in the Environment Agency Life Cycle Analysis 2011 data which identified a number of bag types, and their characteristics. 'Plain English' names were then applied to these carrier bags for the ease of reading. The below table summarises the bag types examined in our analysis, their characteristics, and their 'plain English' names.

Table 6: Summary of bag types:

Bag Name	'Plain English' name	Weight (g)	Volume capacity (litres)
Conventional HDPE Bag	SUCB	7.5-12.6	17.9-21.8
Paper Bag	Paper Bag	55.2	20.1
Heavy duty LDPE bag	6p BFL	27.5-42.5	19.1-23.9
Non-woven PP bag	36p BFL	107.6-124.1	17.7-21.8
Cotton Bag	Cotton Bag	78.7-229.1	17-33.4

Options Analysis

Option 1 – Do Nothing (Baseline Option) - Do not make changes to the powers in the Climate Change Act 2008 so that they continue to apply only to single use carrier bags (SUCB).

304. Under this option the current regulation making powers under the Climate Change Act 2008 would remain in place and only SUCBs would be subject to a minimum charge, as is the current position. As this option is the baseline against which we assess the other options identified we do not estimate any additional costs or benefits from this option.

305. It is anticipated that under this option there would be a continued rise in consumption and inappropriate disposal of other types of carrier bags such as the thicker gauge plastic bag for life (BFL). This would have a detrimental effect on the environment and would undermine the objectives of the SUCB charge.

306. In this scenario the Welsh Ministers would be unable to address any rise in consumption or inappropriate disposal of other types of carrier bags through Regulations. For this reason this is not our preferred option.

Table 7: Charges/minimum prices analysed under this option are as follows:

Bag Type	Original Retail Price	Additional Charge	New Minimum Retail Price
SUCB and Paper Bag	5p	0p	5p
LDPE BFL	6p	0p	6p
Non-woven BFL	36p	0p	36p
Cotton Bag	£2.00	0p	£2.00

Option 2 – Make provision to enable the regulations to apply a minimum charge on thicker gauge plastic bags for life in addition to SUCBs⁶⁴.

307. Under this option Welsh Ministers' existing regulation making power would be extended so that a minimum charge may also be placed on thicker gauge plastic bags for life. The charge would only apply to SUCBs and certain bags for life.

308. This option would restrict the categories of carrier bags that a minimum charge could be placed on and should future changes in trends of bag supply and consumer behaviour alter; the Welsh Ministers would not be able to future proof the policy to address any unintended consequences. For this reason, this would not be our preferred option.

Table 8: Potential additional charges and retail prices under this option are summarised in the tables below:

Bag Type	Original Retail Price	Additional Charge	New Minimum Retail Price
SUCB and Paper Bag	5p	5p	5p
LDPE BFL	6p	5p	11p
Non-woven BFL	36p	0p	36p
Cotton Bag	£2.00	0p	£2.00

Option 3 – Make new provision to enable the regulations to apply the same minimum charge to all types of re-useable bags including those bags currently defined as SUCBs¹

309. Under this option the Welsh Ministers would have the power to set a minimum charge on all types of reusable carrier bags regardless of the material they are made from. This would be in addition to the current minimum charge on SUCBs.

310. It is envisaged that the charges placed on these bags would reflect their environmental impact in terms of production and disposal.

⁶⁴ Note that in the analysis of this option, we assume that the Single Use Carrier Bags (Wales) Regulations 2010 are actually amended, and a minimum charge is placed on other types of carrier bags in addition to single use carrier bags.

311. Widening the scope of the powers in the Climate Change Act 2008 to all other types of bags in addition to SUCB will allow the Welsh Ministers to be responsive to changes in consumer behaviour and demand for different types of bags.
312. This option would allow the Welsh Ministers to address the rise in demand for these types of bags in a consistent and coherent way that is easy to understand for both retailers and the public alike, however in taking into account the results of the analysis carried out by Ricardo-AEA, this option does not deliver the greatest level of net benefits and therefore for the purpose of this exercise would not be a preferred option.

Table 9: Potential additional charges and retail prices under this option are summarised in the table below:

Bag Type	Original Retail Price	Additional Charge	New Minimum Retail Price
SUCB and Paper Bag	5p	5p	5p
LDPE BFL	6p	5p	11p
Non-woven BFL	36p	5p	41p
Cotton Bag	£2.00	5p	£2.05

Option 4 – Make new provision to enable the regulations to apply a differentiated minimum charge on different types of re-useable bags which will include SUCBs¹

313. Under this option the Welsh Ministers would have the power to place a different charge on different types of reusable carrier bags, including those bags that are currently defined as SUCBs.
314. As stated above widening the scope of the existing powers in the Climate Change Act 2008 to all other types of bags in addition to SUCB will allow the Welsh Ministers to be responsive to changes in consumer behaviour and demand for different types of bags. For example, consumer behaviour and demand for different types of bags can be substantially influenced by individual charges for each bag type, with demand depending on the elasticity of demand for each bag type (i.e. how consumption levels change as price changes) and the cross elasticity of demand (how demand for each bag type changes as a result of changes in prices for other bag types).
315. This option can exploit these relationships in a way that can provide a greater level of flexibility and net benefits, compared to the other options and for this reason this option would be our preferred option.
316. As stated above, it is not our intention to unnecessarily legislate but rather to use this opportunity to ensure that the new powers allow the flexibility for the Welsh Ministers to adapt the current charging regime through Regulations, should future evidence suggest that this course of action was necessary. If Regulations were to be made a full and detailed Regulatory Impact Assessment would be undertaken on each option available to the Welsh Ministers at that time.

317. For the purpose of demonstrating how these powers could potentially be used in Regulations by the Welsh Ministers, this option is split into a number of sub-options which explore a range of differentiated minimum prices for carrier bags.

318. In analysing the costs and benefits of these sub options it is estimated that sub-option of Option 4 (Option 4iii) delivers the greatest level of net benefits (benefits minus costs).

319. Further details on the sub-options follows:

Table 10: Option 4i – reflecting the monetised environmental cost per bag in the charge (with a lower boundary of 5p):

Bag Type	Original Retail Price	Additional Charge	New Minimum Retail Price
SUCB and Paper Bag	5p	5p	5p
LDPE BFL	6p	5p	11p
Non-woven BFL	36p	5p	41p
Cotton Bag	£2.00	13p	£2.13

Table 11: Option 4ii- a scaled charge based upon the environmental cost compared to the plastic SUCB:

Bag Type	Original Retail Price	Additional Charge	New Minimum Retail Price
SUCB and Paper Bag	5p	5p	5p
LDPE BFL	6p	5p	11p
Non-woven BFL	36p	5p	41p
Cotton Bag	£2.00	50p	£2.50

Table 12: Option 4iii - a scaled charge based upon the environmental cost minus litter costs compared to the plastic SUCB (capped at 65p):

Bag Type	Original Retail Price	Additional Charge	New Minimum Retail Price
SUCB and Paper Bag	5p	0p	5p
LDPE BFL	6p	21p	27p
Non-woven BFL	36p	63p	99p
Cotton Bag	£2.00	65p	£2.65

Table 13: Option 4iv - reflect the charges in the Republic of Ireland; 18p on any bag for life costing less than 50p:

Bag Type	Original Retail Price	Additional Charge	New Minimum Retail Price
SUCB and Paper Bag	5p	0p	5p
LDPE BFL	6p	18p	24p

Non-woven BFL	36p	18p	54p
Cotton Bag	£2.00	0p	£2.00

Table 14: Option 4v - design the charges to maximise the social net present value:

Bag Type	Original Retail Price	Additional Charge	New Minimum Retail Price
SUCB and Paper Bag	5p	0p	5p
LDPE BFL	6p	9p	15p
Non-woven BFL	36p	11p	47p
Cotton Bag	£2.00	50p	£2.50

Part 3: Costs

320. The items included in the cost section below are those that provide a cost under the 'do nothing' option of Option 1. However, it should be noted that the some of these items provide a marginal benefit under Options 2-4v. That is, the costs are lower under Options 2-4v than they are under Option 1, so marginal to Option 1 they provide a benefit.

321. All costs below are calculated over a 10 year time period (2015-2025), discounted using a 3.5% discount rate (as per Treasury Green Book guidance), and presented in 2014 level prices.

Option 1 - Do Nothing (Baseline Option) - Do not make changes to the powers in the Climate Change Act 2008 so that they continue to apply only to single use carrier bags (SUCB).

322. Option 1 is the baseline against which we assess costs and benefits. For this reason we do not present the costs and benefits of Option 1, and instead present costs and benefits of Option 2-4v marginal to Option 1.

323. There are a number of cost categories for which it is not anticipated that costs would vary between Options 1-4v. For ease of presentation, these costs are presented below:

National and Local Government – Administration Costs for Implementation

324. This proposal requires high level implementation at the Welsh Government level. At present there are two Full Time Equivalent (FTE) staff working on the carrier bag charging policy at an estimated annual cost of £79,452. However, since the activity of these staff are not directly related to the level of the carrier bag charges or demand for bags, it is unlikely that the Welsh Government would increase the number of FTE staff to work on the policy. Therefore, no additional costs are estimated under any of the options.

325. In addition, no marginal communication costs are anticipated under each of the options compared to the baseline. There is currently a bespoke single use carrier bags website that will be used to communicate changes to the legislation and further meetings will be organised with key stakeholders to talk through the implications of the changes. This work will be undertaken using the existing allowance for staff currently working on the single use carrier bags policy.

National and Local Government – Legal Costs

326. There may be legal costs in the cases of non-compliance. Currently, the legislation provides a power for local authorities to enforce the carrier bag charge. The Local Authority Trading Standards department is responsible for enforcing over 100 pieces of primary legislation, and many more Regulations and Orders. They respond to intelligence from other agencies, businesses or complaints from the public; therefore their activity directly relates to complaints made and intelligence received. Once non-compliance is identified, the trader will be provided advice in order to achieve compliance. Only when advice and information is ignored or repeated mistakes are made, that enforcement tools will be used.
327. Since the introduction of the SUCB charge in October 2011, information provided by the Welsh Local Government Association confirmed that 25 complaints had been received from consumers across Wales up to February 2013. All were investigated and 9 of these were deemed justified. 4 complaints were received from businesses about other businesses; 2 were justified. 141 requests for advice have been received from businesses regarding their obligations. 11 requests for advice have been received from consumers regarding the regulations. 127 enforcement contacts have been made with businesses. This includes proactive inspections, test purchases, reactive visits as a result of complaints received or letters of advice issued.
328. While these activities inflict compliance cost (estimated as £1m per annum in the Welsh Government SUCB 2010 charge impact assessment), it is believed that there is unlikely to be a significant increase in these activities as a result of an introduction of a BFL charge. Therefore, we do not estimate any increase in legal costs under each of the options, that is, a static cost which is estimated across all options.

Business – Business Administrative Burden

329. Following the introduction of the SUCB charge, businesses now face administrative burdens in terms of the collections and reporting of single use carrier bag sales information. It is supposed that because retailers now monitor and report on single use carrier bag sales as a result of the introduction of this charge and associated legislation, there will be no additional charge to monitor and report on additional bag sales using the same mechanism. Thus it is proposed that the business administrative burden does not vary between the options.

Business – Small Basket Effects

330. There is a concern that retailer revenue is reduced as a result of “small basket effects” whereby a charge puts off “small basket” customers (those buying a small number of low value items) from shopping. While this effect is plausible where free bags are no longer available when they previously were, a change in the BFL charges is believed to be unlikely to elicit this effect.

Business – Shoplifting

331. Prior to introducing the SUCB charge, concerns were raised that shoplifting would be made easier when large numbers of people carry their own bags. However, while there could be a small increase in shoplifting following the charges, this is likely to be small compared to other benefits for shop owners. It is also likely that any initial rise in shoplifting would fall down to the pre-charge level of shoplifting within a short time of the introduction of charges. Therefore, we do not anticipate that there will be a significant effect on shoplifting in Wales, and therefore this effect has not been quantified in the analysis.

Environmental Impact – Health Impacts

332. A potential unintended consequence of carrier bag reuse relates to consumer health. Despite there being a study (2012)⁶⁵ of the San Francisco bag ban on the increase in deaths due to foodborne illness (e.g. E-coli) associated with reusable bags, there has been no study in the UK that has made a significant link between reusing bags (for food in particular) and illness. Therefore the potential disbenefit on health has not been included within the analysis.

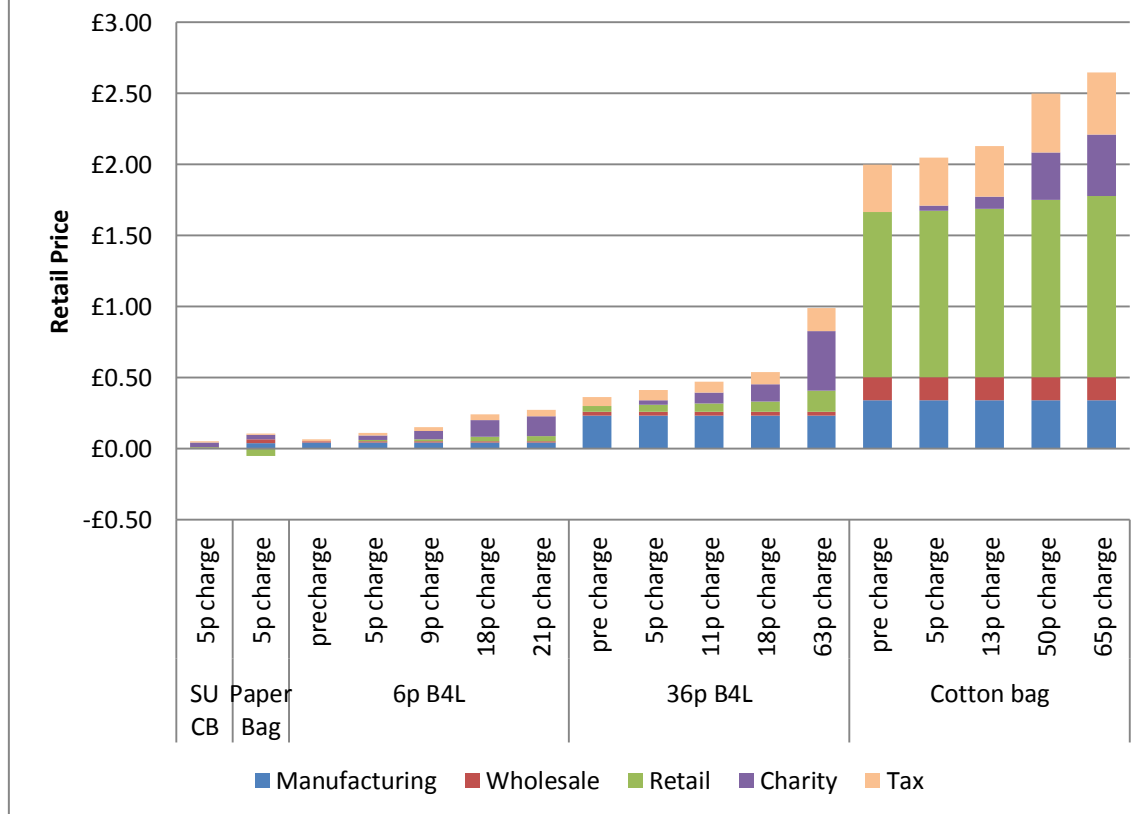
Option 2 - Make provision to enable the regulations to apply a minimum charge on thicker gauge plastic bags for life in addition to SUCBs.

Business Impacts due to change in demand

333. To estimate the costs and benefits to manufacturers, wholesalers, retailers and the exchequer, of the change in demand for different bag types, Ricardo-AEA calculated the apportionment of revenue per final bag for manufacturers, wholesalers, retailers and charities. This was achieved by integrating online data sourced from carrier bag wholesalers, international manufacturers and retailer’s websites. Graph 1 below illustrates the margin per bag for each economic operator both pre- and post-charge for each bag type. It was developed using the figures provided by Ricardo-AEA and further Welsh Government analysis. This information can also be used to estimate the change in consumer expenditure under each option.

⁶⁵ Klick, J., & Wright, J. D. (2012). *Grocery Bag Bans and Foodborne Illness*. University of Pennsylvania Institute for Law & Economics, Philadelphia.

Graph 1 - Pre and post charge margin per bag by economic operator



334. Following this, the overall impact on revenue for manufacturers, wholesalers, retailers, the exchequer and consumers then depends on the number of each bag type sold under the different options, which in turn depends on the price of that bag.

Manufacturer Revenue

335. Under Option 2, wholesalers experience a disbenefit, or cost, as a result of a reduction in their revenues. This disbenefit/cost is estimated at **£4.7 million** (discounted) over 10 years, compared to the baseline. However, it should be noted that the total level of manufacturer revenue under the baseline is estimated at £48.2 million, and so the -£4.7 million figure for Option 2 only represents a reduction in wholesaler revenues of less than 10%.

Wholesaler Revenue

336. Under Option 2, wholesalers also experience a disbenefit, or cost, as a result of a reduction in their revenues. The costs for wholesalers are lower than those for manufacturers under Option 2, with wholesalers experiencing an estimated cost of **£0.8 million** (discounted) over 10 years, marginal to the baseline. However, it should be noted again that

the total revenue for wholesalers does not change much from the baseline (£19.0 million) so the £0.8 million cost under this option only represents a -4.2% change from the baseline.

Retailer Revenue

337. Retailer revenue also falls under Option 2, unlike most other options in this analysis. These costs are estimated at **£5.7 million** (discounted) over 10 years, marginal to the baseline. This represents 11.4% of total retailer carrier bag revenue under the baseline (£49.9 million).

Consumer Expenditure

338. The change in consumer expenditure under Option 2, as for all options, is equal to the change in manufacturer revenue, wholesaler revenue, retailer revenue, tax revenue, and charitable donations (see below) combined. For Option 2, the estimated reductions in revenue for manufacturers, wholesalers and retailers is outweighed by the increase in charitable donations and tax revenue, so overall there is an increase in consumer expenditure. This is therefore considered a cost to consumers, estimated at £17.2 million (discounted) over 10 years, marginal to the baseline.

Option 3 - Make new provision to enable the regulations to apply the same minimum charge to all types of re-useable bags including those bags currently defined as SUCBs.

Business Impacts due to changes in demand

339. Business Impacts for Option 3 are calculated in the same way as those for Option 2. Under Option 3 both manufactures and wholesalers experience costs marginal to the baseline, which are presented here, but retailers experience benefits marginal to the baseline, which are presented in the 'Benefits' section.

Manufacturer Revenue

340. Under Option 3, wholesalers experience a disbenefit, or cost, as a result of a reduction in their revenues. This disbenefit/cost is estimated at **£3.8 million** (discounted) over 10 years, compared to the baseline. Again, it should be noted that the total level of manufacturer revenue under the baseline is estimated at £48.2 million, and so the -£3.8 million figure for Option 2 only represents a reduction in wholesaler revenues of less than 8%.

Wholesaler Revenue

341. Under Option 3, wholesalers also experience a disbenefit, or cost, as a result of a reduction in their revenues. The costs for wholesalers are lower than those for manufacturers under Option 3, with wholesalers

experiencing an estimated cost of **£0.2 million** (discounted) over 10 years, marginal to the baseline. However, it should be noted again that the total revenue for wholesalers does not change much from the baseline (£19.0 million) so the £0.8 million cost under this option only represents around a -1% change from the baseline.

Consumer Expenditure

342. The change in consumer expenditure is again calculated as the sum of the change in manufacturer revenue, wholesaler revenue, retailer revenue, tax revenue and charitable donations (see below). For Option 3, the decrease in revenue received by manufactures and wholesalers is outweighed by the increase in revenues for retailers and the exchequer, and increase in charitable donations. Overall this means that consumer expenditure increases under Option 3. This is estimated at £30.0 million (discounted) over 10 years.

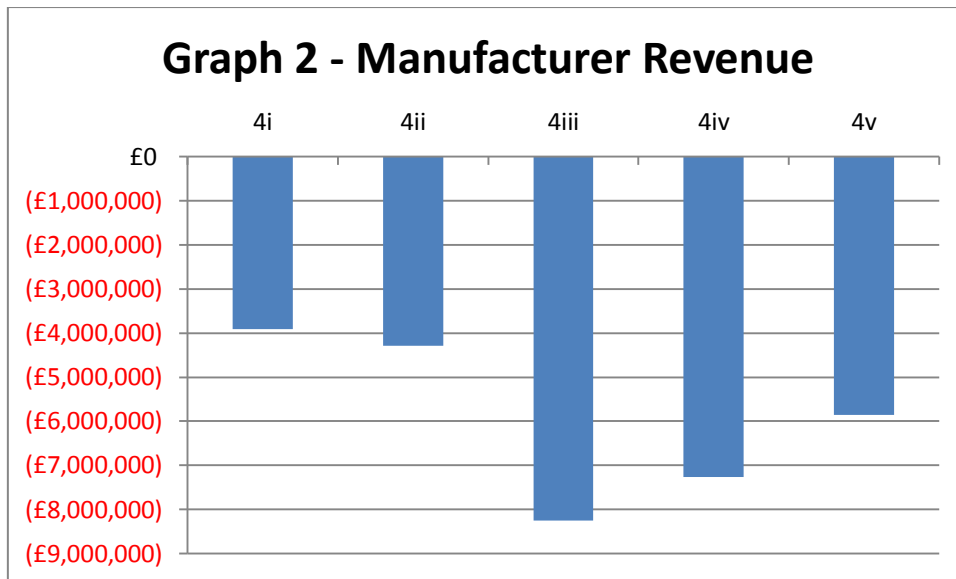
Option 4 - Make new provision to enable the regulations to apply a differentiated minimum charge on different types of re-useable bags which will include SUCBs.

Business Impacts due to changes in demand

343. Business Impacts for Option 4 are calculated in the same way as those for Option 2. Under Option 4 manufacturers experience costs marginal to the baseline under all sub-options 4i-4v. Wholesalers and retailers experience both costs and benefits marginal to the baseline, depending on the sub-option chosen. As the majority of sub-options result in marginal costs to wholesalers the impact on wholesalers has been presented in the costs section, for ease of presentation. As the majority of sub-options result in marginal benefits for retailers, the impact on retailers has been presented in the benefits section, for ease of presentation.

Manufacturer Revenue

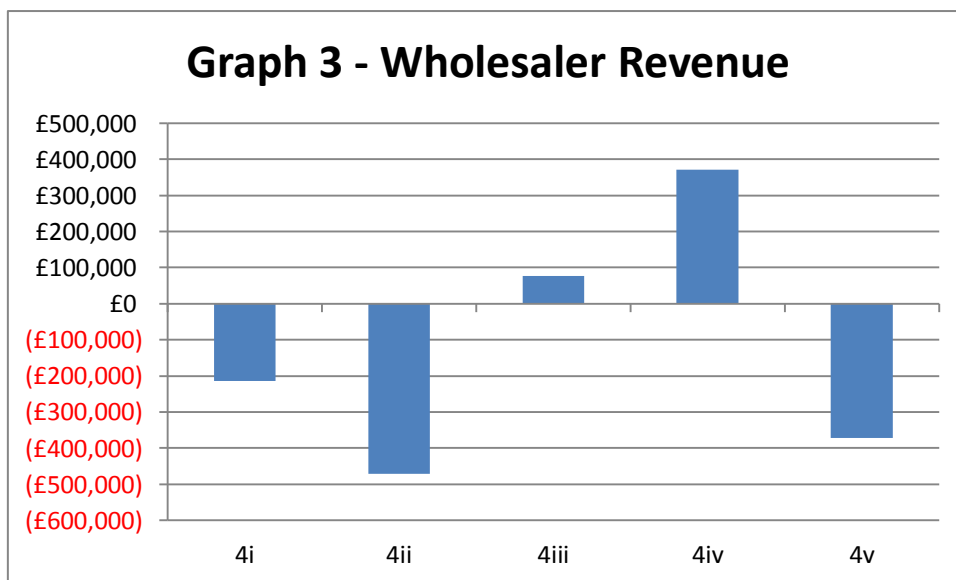
344. The costs (discounted over ten years) marginal to the baseline under the sub-options considered under Option 4 are presented in the table below for manufacturers:



345. As can be seen, these costs range from **£3.9 million to £8.2 million** (discounted) over 10 years, marginal to the baseline. These costs represent a significant share of total manufacturer revenue under the baseline, of between 8-17%.

Wholesaler Revenue

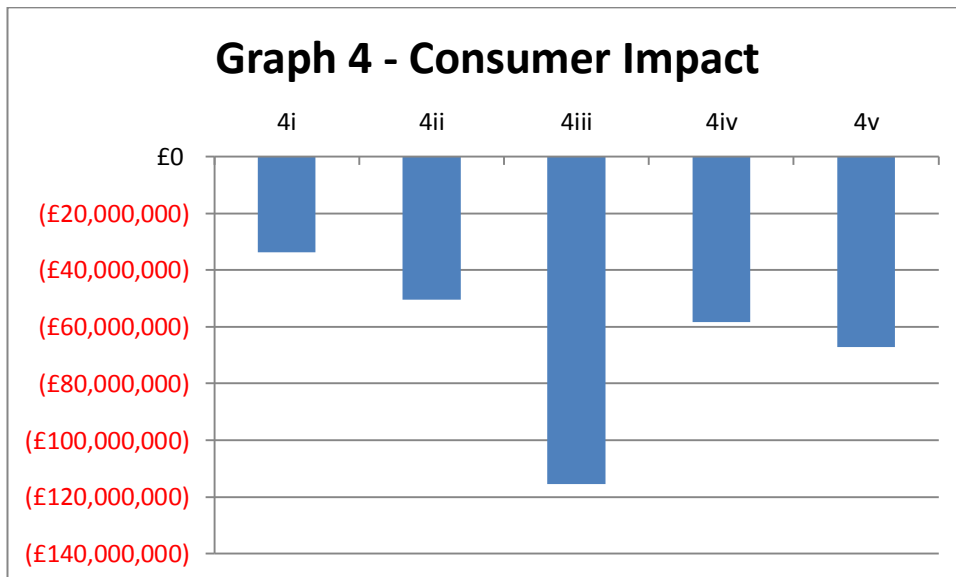
346. The costs (discounted over ten years) marginal to the baseline under the sub-options considered under Option 4 are presented in the table below for wholesalers:



347. As can be seen, these impacts range from **costs of £0.5 million to benefits of £0.4 million, discounted over 10 years**. Again, it should be noted that these impacts only represent a maximum change of around 2.7% compared to the total manufacturer revenue under the baseline.

Consumer Impact

348. As for all options above, the change in consumer expenditure is equal to the change in revenues for manufacturers, wholesalers, retailers, the exchequer and the change in charitable donations. Whether there is an increase or decrease in revenues for manufacturers, wholesaler and retailers differs between the sub options, although all sub-options have an increase in charitable donations and tax revenue.



349. Overall, all sub-options lead to an increase in consumer expenditure. This ranges from £33.8 million to £115.5 million, discounted over ten years, as can be seen in the graph above.

Part 3: Benefits

350. All benefits below are calculated over a 10 year time period (2015-2025), discounted using a 3.5% discount rate (as per Treasury Green Book guidance), and presented in 2014 level prices.

Option 1 – Do Nothing (Baseline Option) – Do not make changes to the powers in the Climate Change Act 2008 so that they continue to apply only to single use carrier bags (SUCB).

351. Option 1 is the baseline against which we assess costs and benefits. For this reasons we do not present the costs and benefits of Option 1, and instead present costs and benefits of Option 2-4v marginal to Option 1.

352. One benefit which has not been monetised, and is likely to be similar under each of the options is the environmental impact, in terms of behavioural spill over.

353. Behavioural ‘spill over’ occurs when undertaking pro-environmental behaviour could provide additional benefit. Poortinga et al. (2013)⁶⁶ found higher levels of a waste-conscious/environmental identity after the SUCB charge was introduced in Wales, which may lead to other waste-conscious decisions in the longer term. However, it is unclear what additional benefit a BFL charge would bring on top of the existing behavioural spill over suggested from the 2011 SUCB charge. As a result, this benefit has not been separately monetised for each of the options.
354. In addition, there are also benefits of building relationships between retailers and charitable organisations which are not monetised within this analysis. An ongoing relationship can encourage retailers to provide benefits in kind to charitable partners, in terms of expertise, employee time, ‘freebies’ and free marketing for the charity. It is not expected that these potential additional benefits are likely to differ considerably between options as the relationships were originally built as a result of the SUCB charge implemented in 2011.

Option 2 – Make provision to enable the regulations to apply a minimum charge on thicker gauge plastic bags for life in addition to SUCBs.

Charitable Donations

355. Research undertaken by Ricardo-AEA found that most retailers donated 83% of the 5p carrier bag charge to charities, with the remaining 17% covering VAT. On average 82.5% of the charge was donated, with a lower band of 71% and an upper band of 100% for one retailer. Most businesses split donations in equal parts between two or more charities, and some support their own foundations with 100% of the revenue. In addition, nearly all recipients are Wales-based charities, with the large majority being involved in environmental protection and conservation.
356. In order to estimate the potential amount of revenue donated to charities under each of the options above, it is assumed that 83% of the additional charge is donated to charity, for 80% of retailers. That is, 83% of the increase in retail price of each bag type following the setting of a minimum price would be donated to charity. 20% of retailers are assumed not to donate, and keep the revenues for themselves. However, sensitivity analysis exploring the upper and lower bounds of the proportion of a charge donated to charities is explored in the ‘Assumptions, Risks and Sensitivity Analysis’ section below.
357. The proportion of the retail price donated to charities under each charge on each bag type under the different options is also set out in the ‘Pre and post charge margin per bag by economic operator’ chart above. Overall, charitable donations under Option 2 are estimated to be **£14.1 million** (discounted) over 10 years, marginal to the baseline. This is calculated by

⁶⁶ Poortinga, W., Whitmarsh, L., & Suffolk, C. (2012). *Evaluation of the introduction of the single-use carrier bag charge in Wales: attitudes change and behavioural spillover. Report to the Welsh Government, June 2012.*

applying the levels of bad demand under this option to the proportions of retail price donated to charities for each bag type.

Tax Revenue

358. The change in tax revenues under each option are calculated by multiplying the tax share of the final retail price for each bag type, by demand for each bag type, where the tax rate is 20%. Under Option 2 the change in tax revenue is estimated as +£2.9 million, providing a benefit to the exchequer.

Waste – Waste Disposal and Recycling

359. In order to estimate the costs of waste and disposal of carrier bags, Ricardo-AEA have estimated the proportion of each bag type which is reused, based on the Exodus study (*Behaviour Study on the Use and Reuse of Carrier Bags (2013)*). The proportion of new bags, disposed of, and recycled has been based on input from a number of waste experts, including Natural Resources Wales, Keep Wales Tidy, The Chartered Institution of Wastes Management Cymru, and the Welsh Local Government Association.

360. The following table summarises average amount of times each bag type is used, and the proportion of new bags that are reused, recycled, disposed of and littered.

Table 15: Average amount of time each bag is used

Bag Type	Aver times used	Proportion Reused	Proportion Recycled	Proportion Disposed	Proportion Littered
New SUCB	1.45	31%	23%	37%	9%
New Paper Bag	1.00	0%	14%	5%	5%
New 6p BFL	4.10	76%	2%	1%	1%
New 36p BFL	29.00	97%	62%	19%	19%
New Cotton Bag	10.89	91%	5%	5%	2%

361. Paper bags are not fit for reuse, as they are not particularly robust. SUCBs have some reuse value, for example reuse as bin liners. Other bag types also have a reasonable high reuse rate, as they are more robust. Paper bags are the most recycled bag type, as paper is a widely recognised recyclable waste stream.

Recyclable and landfill costs

362. In order to estimate the recycling cost, Ricardo-AEA have utilised Annual Gate fees reports from WRAP, as local authorities and Supermarkets receive a charge/rebate per tonne of waste sent to material recycling facilities, dependent on the current cost of the reprocessing activity and the

value of the output material. A net cost per bag has been calculated by Ricardo-AEA, based upon the known material weights of each carrier bag thus scaling the 'per tonne' values obtained from WRAP reports to a per bag figure. For the purposes of analysis it is assumed that the 2013/14 gate fee and disposal fee figures for the UK will remain constant across the period of analysis. From these figures the cost of recycling and disposal per bag (net of material revenue) has been calculated using the respective weights of different bag types.

363. Similarly to the above, a cost for disposing each bag type via landfilling has been calculated using disposal fees. The landfill cost per tonne excludes landfill tax, and again has been scaled to a per bag basis. The following table shows the recycling and disposal costs that have been calculated by Ricardo-AEA for different bag types.

Table 16: Recycling and disposal costs

Bag type:	Yearly calculated £ per bag	
	2013/14 Recycling	2013/14 Disposal
SUCB	0.01p	0.0p
Paper Bag	0.05p	0.1p
6p BFL	0.03p	0.1p
36p BFL	0.1p	0.2p
Cotton Bag	0.16p	0.4p

364. Total Waste disposal and recycling costs for Option 2 are estimated at about **£3.5k** (discounted) over 10 years, marginal to the baseline. As can be seen, the scale of this benefit is small compared to other costs and benefits presented in this analysis.

Environmental Impact – Total Environmental Impact

365. There are a number of environmental costs associated with the production and disposal of carrier bags, these include littering, carbon emissions, and air pollution. These costs have been calculated by Ricardo-AEA and are summarised in the table below:

Table 17: Summary of environmental costs for production and disposal of carrier bags

Carrier Bag Type	CO2 Impact	Air Quality	Water Pollution cost	Littering cost on land	Total cost per bag	Average times used	Total cost per use
SUCB	0.01p	0.02p	Not monetised	1.2p	1.23p	2.03	0.607p
Paper Bag	0.03p	0.09p	Not monetised	0.2p	0.32p	2.60	0.123p
6p BFL	0.05p	0.08p	Not monetised	0.3p	0.43p	2.43	0.177p
36p BFL	0.13p	0.25p	Not monetised	0.1p	0.48p	5.80	0.083p
Cotton	2.38p	9.99p	Not	0.1p	12.47p	125.70	0.099p

Bag			monetised				
-----	--	--	-----------	--	--	--	--

366. The cotton BFL was estimated to have the greatest environmental impact, followed by the SUCB. Taking in account reuse, the environmental impact of the SUCB is the greatest, followed by the LDPE bag and paper bag. Taking in account reuse, the cotton bag is the most environmentally friendly.

Bag Litter:

367. Costs of cleaning up bag litter have been estimated by Ricardo-AEA using the following formula:

A = Total amount of Waste litter material “cleaned-up each year”
 B = Composition of this waste and the amount attributable to plastic bags
 C = Total annual cost to the Welsh government in cleaning-up this waste material (£70m)
 A*B = the amount of carrier bag waste collected
 A*C = the cost per tonne of litter collected (D)
 D / (1 tonne/unit of plastic bags) = unit cost of littering per bag.

368. The time cost of collecting the waste is also added to this, with the time cost of collecting a tonne of waste being lower for heavier bag types, as it takes less time to collect a tonne.

CO2 costs:

369. In order to estimate the CO2 cost of bags, the global warming potential of each bag type can be used in conjunction with the ‘shadow price’ of carbon to monetise carbon impacts. These costs represent the carbon costs of extracting raw materials, processing and disposing of each carrier bag type. Carbon impacts of different bag types have been taken from the Environmental Agency’s Life Cycle Analysis studies. These carbon impacts are then monetised using the traded value of carbon, as set out in the Department of Energy & Climate Change (DECC) supplementary guidance to the HM Treasury Green Book, to provide the carbon costs of different bag types.

Air Quality costs:

370. Air quality impacts refer to the gasses mostly emitted in the production phase that contribute to toxicity in the air. Air quality damage costs provided in supplementary guidance to the HM Treasury Green⁶⁷ book have been used to value the emissions of sulphur oxide released as a result of the production of each carrier bag type in the analysis.

⁶⁷ <https://www.gov.uk/air-quality-economic-analysis>

Water Pollution

371. Due to the uncertainty around data sources, the impact on water quality has not been estimated. However, the effect of including this has been tested in the sensitivity analysis below.
372. Overall, environmental impacts are estimated at **£5.1 million** (discounted) over 10 years, marginal to the baseline, under Option 2.

Option 3 – Make new provision to enable the regulations to apply the same minimum charge to all types of re-useable bags including those bags currently defined as SUCBs

Business Impacts due to change in demand

373. Benefits to business (manufacturers, wholesalers, and retailers) due to change in demand for Option 3 have been estimated in the same way as the costs. Information on how these costs and benefits are estimated can be found under Option 2 in the 'Costs' section.

Retailer Revenue

374. Under Option 3, retailers experience a benefit as a result of an increase in their revenues. This benefit is estimated at **£11.8 million** (discounted) over 10 years, compared to the baseline. However, it should be noted that the total level of retailer revenue under the baseline is estimated at £49.9 million, and so the £11.8 million figure for Option 3 represents an increase in retailer revenues of more than 23%.

Charitable Donations

375. Charitable donations are calculated in the same way for Option 3 as for Option 2. Overall, charitable donations under Option 3 are estimated to be **£17.2 million** (discounted) over 10 years, marginal to the baseline. Again, this is calculated by applying the levels of bad demand under this option to the proportions of retail price donated to charities for each bag type.

Tax Revenue

376. Again the change in tax revenues under each option are calculated by multiplying the tax share of the final retail price for each bag type, by demand for each bag type, where the tax rate is 20%. Under Option 3 the change in tax revenue is estimated as +£5.0 million, providing a benefit to the exchequer.

Waste – Waste Disposal and Recycling

377. Waste disposal and recycling costs are estimated in the same way for Option 3 as they are for Option 2. Overall, these are estimated at around £3.4k (discounted) over 10 years, marginal to the baseline. Again, these costs are small compared to other costs and benefits presented in the analysis.

Environmental Impact – Total Environmental Impact

378. Environmental Impacts under Option 3 are estimated in the same way as for Option 2. Overall, environmental benefits are estimated to be slighter lower than Option 2, at **£4.0 million** (discounted) over 10 years, marginal to the baseline.

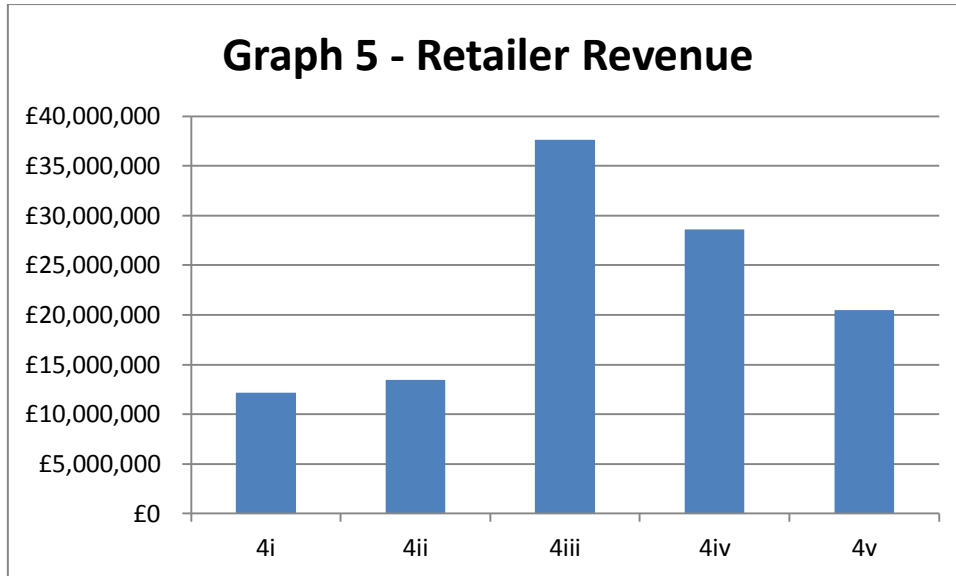
Option 4 – Make new provision to enable the regulations to apply a differentiated minimum charge on different types of re-useable bags which will include SUCBs

379. Benefits to business (manufacturers, wholesalers, and retailers) and the exchequer due to change in demand for Option 4 have been estimated in the same way as the costs. Information on how these costs and benefits are estimated can be found under Option 2 in the ‘Costs’ section.

Retailer Revenue

380. The graph below shows the impact on retailer revenues, marginal to the baseline, under the sub-options 4i-4v. For all sub-options of Option 4 there is an increase in retailer revenues compared to the baseline.

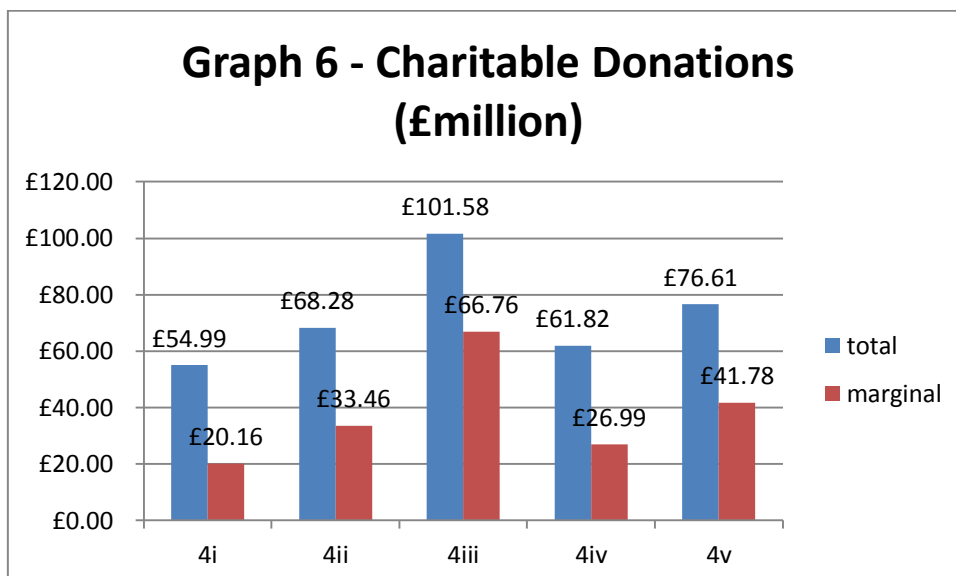
381. As can be seen in graph 5 below, the impact on retailer’s revenues ranges from an increase of £12.1 million to £37.7m (discounted) over 10 years, marginal to the baseline. The scale of the benefits in relation to the baseline costs are greater here than for manufacturers and retails. The total retailer revenue under the baseline is about £49.9 million, so the figures below represent an impact of between roughly +25% and +75% of the baseline revenues.



Charitable Donations

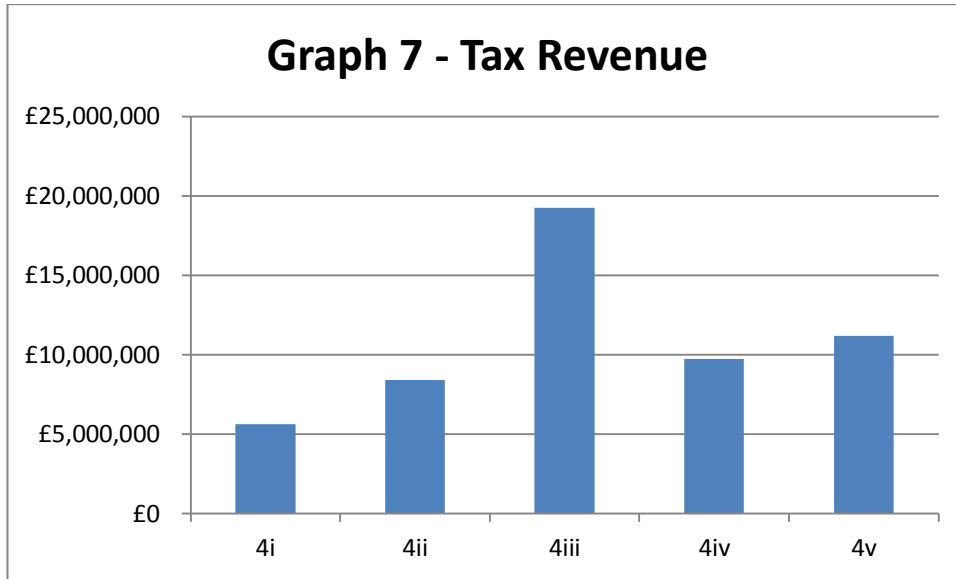
382. Charitable donations are calculated in the same way for Option 4 as for Option 2 and 3. Overall, charitable donations under Option 4 are estimated to range between £20.2 million and £66.8 million (discounted) over 10 years, marginal to the baseline, as shown in the table below. Once again, this is calculated by applying the levels of bag demand under this option to the proportions of retail price donated to charities for each bag type.

383. As can be seen in graph 6 below, the level of donations differs between sub-options. This is dependent on bag demand, and the level of charges placed on each bag type. For example, under Option 4iv there is a lower demand for 6p BFL and 36 BFL than most of the other options, while there is high demand for SUCBs and Cotton Bags. As the amounts donated to charity are low for SUCBs and Cotton Bags, and higher for 6p BFL and 36p BFL, this means that overall donations to charity are lower under this option.



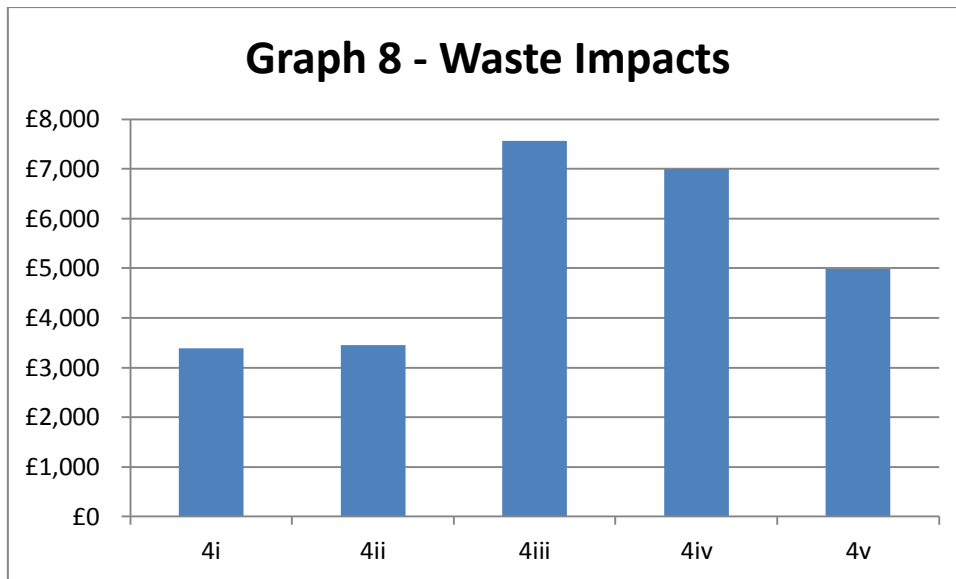
Tax Revenue

384. As for Option 2 and 3, the change in tax revenues under each option are calculated by multiplying the tax share of the final retail price for each bag type, by demand for each bag type, where the tax rate is 20%. Under Option 4 and its sub-options the change in tax revenue is estimated to range from +£5.6 million to +£19.2 million, providing a benefit to the exchequer.



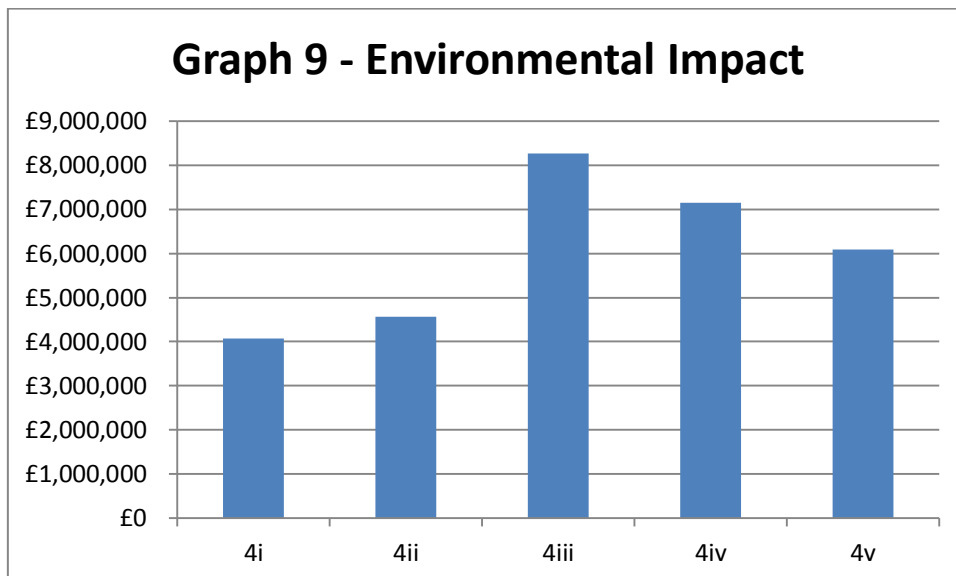
Waste – Waste Disposal and Recycling

385. Waste disposal and recycling costs are estimated in the same way for Option 4 as they are for Option 2 and 3. Overall, these are estimated at between £3.3k and £7.6k (discounted) over 10 years, marginal to the baseline, as shown in the graph 8 below. As for the other options, these costs are small compared to other costs and benefits presented in the analysis.



Environmental Impact – Total Environmental Impact

386. Environmental Impacts under Option 4, and its sub-options, are estimated in the same way as for Option 2 and 3. Overall, environmental benefits are estimated to be within the range **£4.1 to £8.3 million** (discounted) over 10 years, marginal to the baseline, as shown in graph 9 below.



Part 3: Summary of preferred option

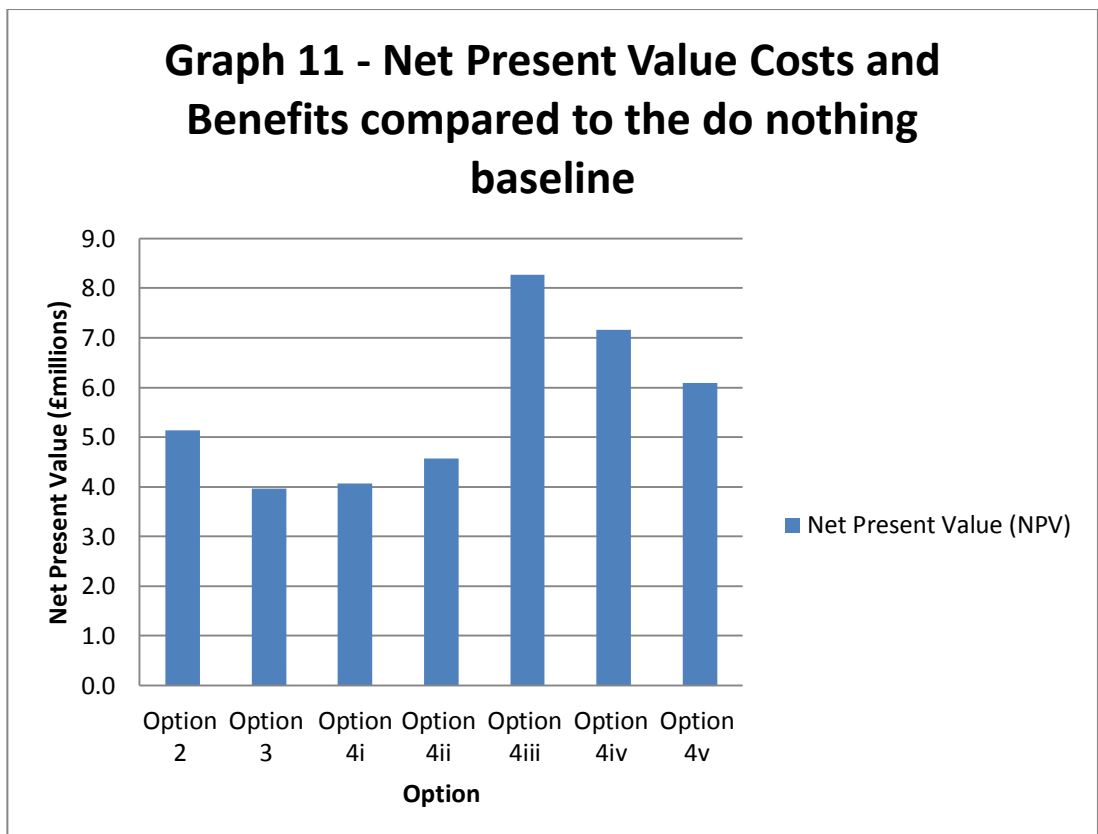
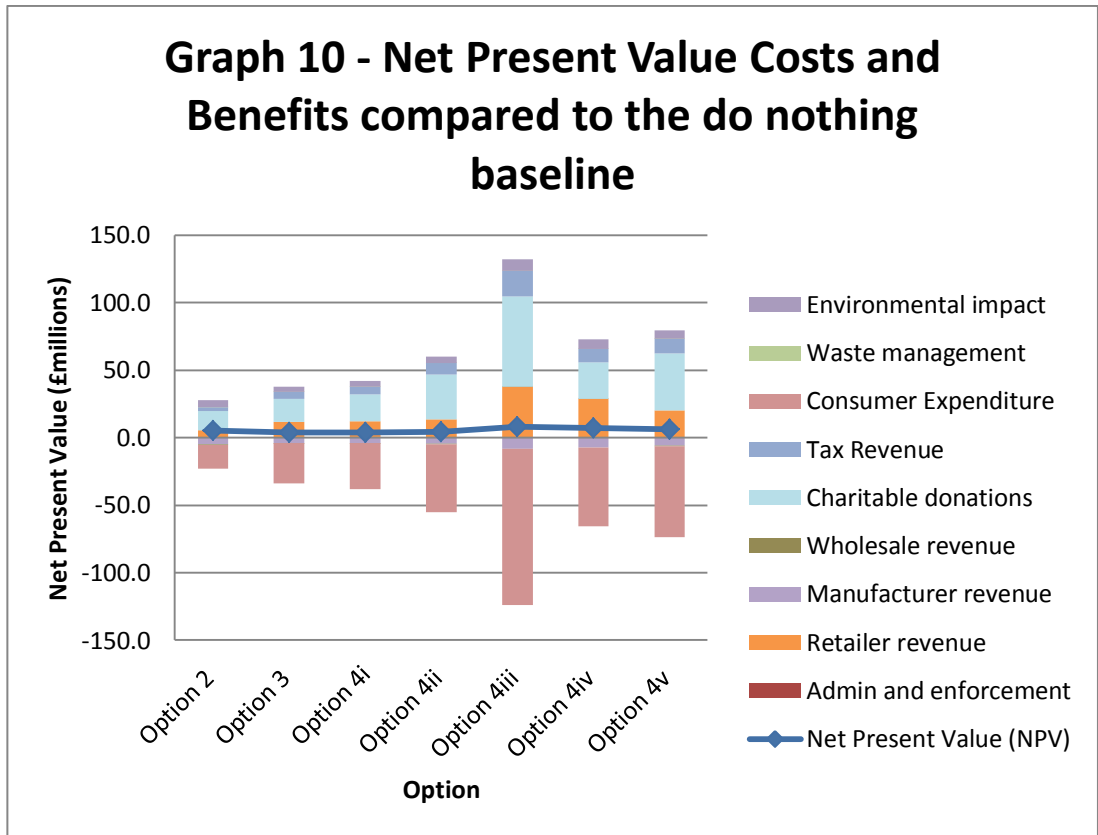


Table 18: Summary of costs for each option

£millions	Option							
	1	2	3	4i	4ii	4iii	4iv	4v
Admin and enforcement	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Retailer revenue	0.0	5.7	11.8	12.1	13.4	37.7	28.6	20.5
Manufacturer revenue	0.0	-4.7	-3.8	-3.9	-4.3	-8.2	-7.3	-5.9
Wholesale revenue	0.0	-0.8	-0.2	-0.2	-0.5	0.1	0.4	-0.4
Charitable donations	0.0	14.1	17.2	20.2	33.5	66.8	27.0	41.8
Tax Revenue	0.0	2.9	5.0	5.6	8.4	19.2	9.7	11.2
Consumer Impact	0.0	-	-	-	-	-	-	-
Waste management	0.0	17.2	-30.0	33.8	-50.6	115.5	-58.4	-67.2
Environmental impact	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net Present Value (NPV)	0.0	5.1	4.0	4.1	4.6	8.3	7.2	6.1

387. Graphs 10 and 11 and table 18 above clearly demonstrate that of all of the options considered, the preferred option which generally has the greatest Net Present Values (present value benefits minus present value costs) is Option 4, and if Regulations were to be made, sub-option 4iii would be the preferred charging regime at this moment in time, as it has the highest Net Present Value overall. The charges/minimum prices proposed under this sub-option are included below for information.

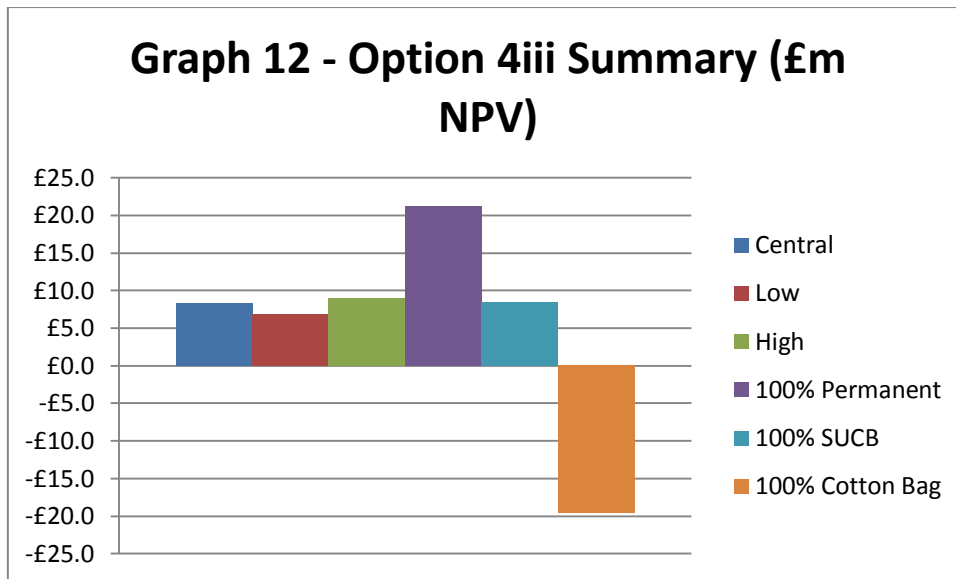
Table 19: Bag type prices for preferred option

Bag Type	Original Retail Price	Additional Charge	New Minimum Retail Price
SUCB	5p	0p	5p
Paper Bag	5p	0p	5p
6p BFL	6p	21p	27p
36p BFL	36p	63p	99p
Cotton Bag	£2.00	65p	£2.65

388. From the analysis we believe that Option 4 allows the Welsh Ministers to be most responsive to changes in consumer behaviour and demand for different types of bags. As the evidence shows, consumer behaviour and demand for different types of bags can be substantially influenced by individual charges for each bag type, with demand depending on the elasticity of demand for each bag type (i.e. how consumption levels change as price changes) and the cross elasticity of demand (how demand for each bag type changes as a result of changes in prices for other bag types). This

option can exploit these relationships in a way that can provide a greater level of flexibility and net benefits, compared to the other options.

389. It should be noted, however, that at this stage it is not our intention to legislate through Regulations; rather we have used this opportunity to expand the existing regulation making powers in the Climate Change Act 2008 to ensure that the current charging regime can be adapted in a flexible and targeted way through the use of Regulations if future evidence identifies that this course of action is necessary.
390. The analysis of Option 4iii, and other options, has been carried out only to demonstrate how we could potentially implement these powers through regulations. This analysis has shown that based on the evidence at this point in time, such changes to the charging regime could deliver benefits that exceed costs, and that Option 4iii could potentially lead to the greatest net benefits.
391. It is recognised that if the powers were to be invoked through Regulations at a later date, a full and detailed Regulatory Impact Assessment would need to be undertaken on each of the options available to the Welsh Ministers, and that the findings may differ to the findings we have presented in this Regulatory Impact Assessment in terms of the costs and benefits for different charging regimes.
392. Graph 12 below (Option 4iii Summary) provides the results of the analysis for the option with the highest Net Present Value (Option 4iii). The results of the sensitivity tests are also included for this option, so the impact of varying assumptions and input values can be seen. Details on the sensitivity testing undertaken can be found below.
393. It should be noted, however, that as stated above, we are only seeking to expand the existing regulation making powers in the Climate Change Act 2008 to enable the Welsh Ministers to place a charge on different types of re-useable bags if future evidence suggested that this course of action was necessary. The analysis of Option 4iii, and other options, has been used to demonstrate that such changes to the charging regime could deliver benefits that exceed costs.



Part 3: Key Costs and benefits for preferred option

394. The following table shows the key costs and benefits of Option 4iii under the central case and the sensitivity testing. This option results in the highest Net Present Value, and remains mostly positive under the sensitivity analysis. The highest Net Present Value for Option 4iii is explained by a large reduction in the demand for 6p BFL. A switch from 6p BFL towards other bag types, including permanent bags, significantly reduces environmental costs. This large reduction reduces environmental costs considerably.

395. However, it should also be noted that although this analysis demonstrates that there are scenarios in which the benefits of changing the carrier bag charging regime would exceed the costs, at this stage we are only seeking powers to enable Welsh Ministers to place a charge on different types of re-useable bags, in addition to the charge on SUCBs, if future evidence suggested that this course of action was necessary. It is not our intention to legislate unnecessarily and introduce the charges/minimum prices analysed above, but rather to ensure that Welsh Ministers have the flexibility to adapt the charging regime through Regulations in the future if evidence demonstrates that this is needed. At that point a full and detailed Regulatory Impact Assessment would be undertaken on each option available to Welsh Ministers.

Table 20: Results of Analysis for Preferred Option (Option 4iii) – Marginal to Baseline (£million)

Scenario:	A	B	C	D	E	F
NPV	8.3	7.0	9.1	21.2	8.5	-19.6
Admin and Enforcement Costs	0.0	0.0	0.0	0.0	0.0	0.0
Retailer Revenue	37.7	32.9	40.7	8.3	10.9	144.6

Manufacturer Revenue	-8.2	-6.8	-9.2	-19.1	-15.7	17.6
Wholesaler Revenue	0.1	-0.2	0.3	-4.8	0.9	12.1
Charitable Donations	66.8	73.7	62.4	42.9	89.2	89.6
Tax Revenue	19.2	19.9	18.8	5.5	17.1	52.8
Consumer Impact	-115.5	-119.5	-113.1	-32.7	-102.5	-316.8
Waste Management Costs	0.0	0.0	0.0	0.0	0.0	0.0
Environmental Impact	8.3	7.0	9.1	21.2	8.5	-19.6

Where A = Base Case, B = Low Elasticity, C = High Elasticity, D = Cross Elasticity – 100% Switch to Permanent, E = Cross Elasticity – 100% switch to SUCB, F = Cross Elasticity – 100% switch to Cotton Bags

Part 3: Assumptions, Risks and Sensitivity Analysis

396. Due to the limited data available and the assumptions made above, sensitivity testing has been undertaken on the above options. Sensitivity analysis explores how changes in different variables are likely to impact on the outcome of particular options. This is important to get an understanding of how particular variables and assumptions are contributing towards the final cost and benefit estimates.

397. The sensitivity testing has focussed on the following areas:

- Demand for Bags
- Price Elasticity of Demand
- Cross Elasticity of Demand
- Charitable contribution per bag sold
- Water Quality Impacts

Demand for Bags

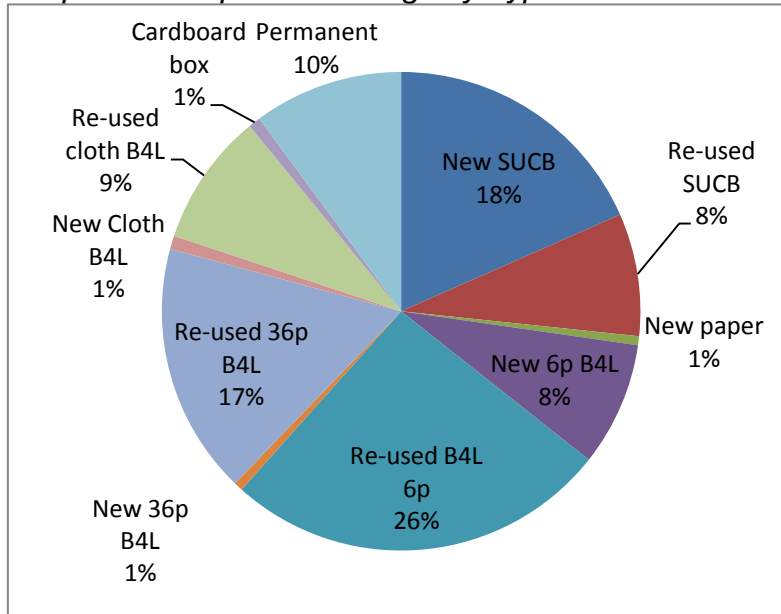
398. Due to the lack of data on total carrier bag demand in Wales, an estimate had to be made for this figure. This estimation was made using WRAP data on SUCB demand from main chain food stores, as well as data from a study by Exodus. This study (Behaviour Study on the Use and Reuse of Carrier Bags (2013)) monitored bag use of 4884 customers in food chain, non-food chain and independent shops, for a number of different bag types.

399. SUCB demand for main chain stores was estimated as 70 million in Wales in 2013. The table and graph below shows the sectoral proportions of SUCB demand and proportions of bag types in total bag demand which were used to make overall bag demand estimations.

Table 21: Sectoral proportions of SUCB demand and proportions of bag types in total bag demand

Store Type	Number of SUCB noted in Exodus Study	Proportion of Total
Food chain	4108	76.05%
Non-food chain	773	14.31%
Independent	520	9.62%

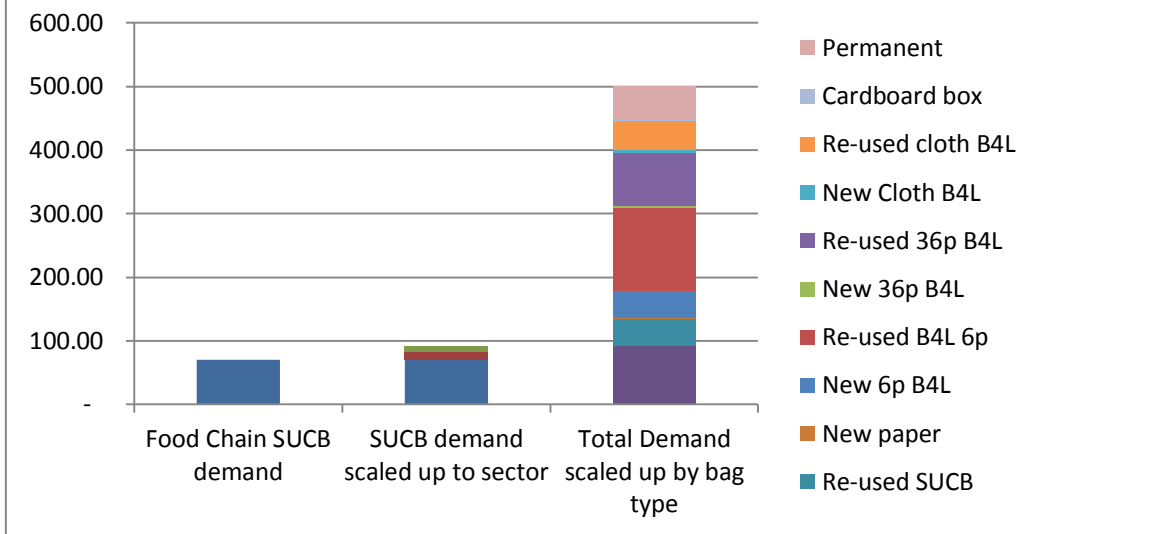
Graph 13 - Proportion of Bags by Type:



400. To estimate bag demand WRAP data on SUCB demand for main chain stores was scaled up to sectoral single use carrier bag demand using Exodus sectoral proportions, and scaled down to bag type using the Exodus bag type proportions. However, the total number of bags may be underestimated, as some other retailers from main and smaller food stores was not included in the WRAP data. However, this underestimation of bag demand does not pose a major problem, as it leads to more conservative NPV figures rather than more optimistic NPV figures.

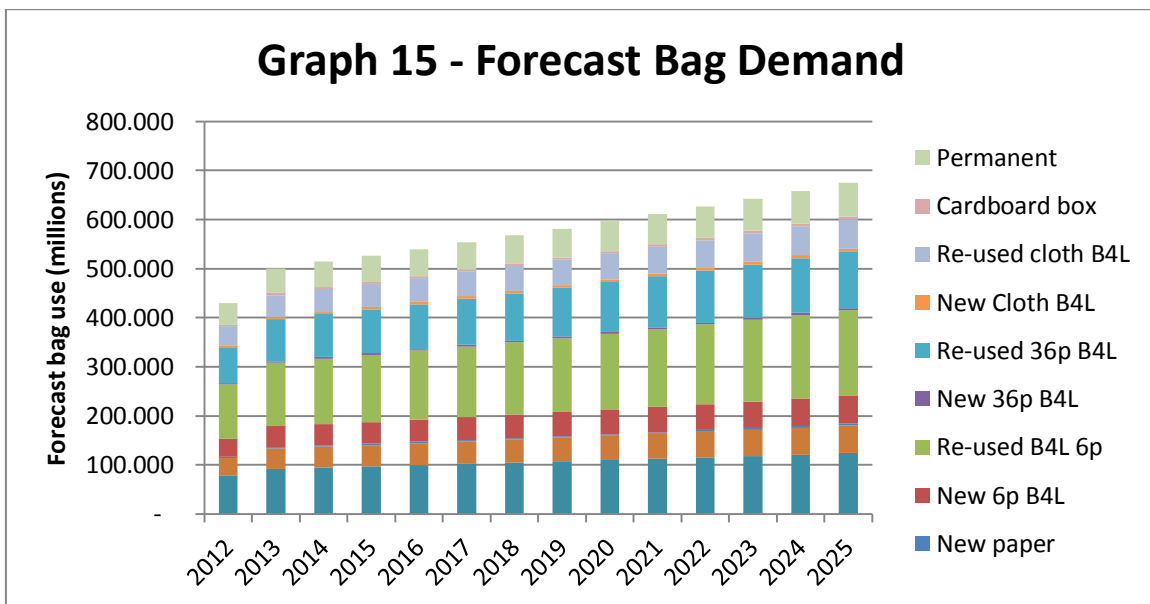
401. The following graph illustrated how the above figures have been aggregated up for 2013.

Graph 14 - Calculating Total Bag Demand in 2013 (millions)



402. These figures are then presumed to increase at the same rate as predicted GDP growth⁶⁸ up until 2025, so overall demand for bags looks like the below:

Graph 15 - Forecast Bag Demand



403. However, it has also been recognised that data on plastic bag demand for the whole food sector is not available. In particular, there is no data on plastic bag demand in the takeaway sector. It has been estimated in Defra's Food Statistics Pocket Book that the consumer spend on catering is 55% of the consumer spend on food and drink grocery shopping. In addition, the

⁶⁸ <http://budgetresponsibility.org.uk/category/topics/economic-forecasts/>
2.5% growth is assumed after 2018

WRAP data on carrier bags only covers about 80% of the major food chain retailers market. Therefore, as an upper estimate, the impact of increasing bag demand by 55% has been explored under sensitivity analysis. This increase is likely to over-estimate the amount of bags in the catering sector, as the same level of spend in the catering industry will obtain a lower volume of goods so fewer bags are required, not all purchases require a plastic bag, and some carrier bags are exempt from a charge in this sector. The sensitivity analysis finds that increasing bag demand does not affect the ranking of the options above, as the increase in bag demand affects all options in the same way. However, the size of the costs and benefits does increase in magnitude under this sensitivity test.

Price Elasticity of Demand

404. Price elasticity of demand is the extent to which demand for a product changes in response to a change in its price. In order to estimate the change in demand for each bag type under each of the options, it has been necessary to estimate how demand changes in response to changes in price.

405. Price elasticities of demand have been estimated based on exponential regressions of two points. For SUCBs the first point is the current estimated demand with the 5p charge, and the second point is the estimated demand if the five pence charge was not put in place. This is estimated by assuming carrier bag demand would have increased at the level of GDP growth if the single use carrier bag charge was not put in place. For the other bag types the first point has used existing demand data where charges are zero, and the second point is an assumed percentage fall in demand following a five pence price increase.

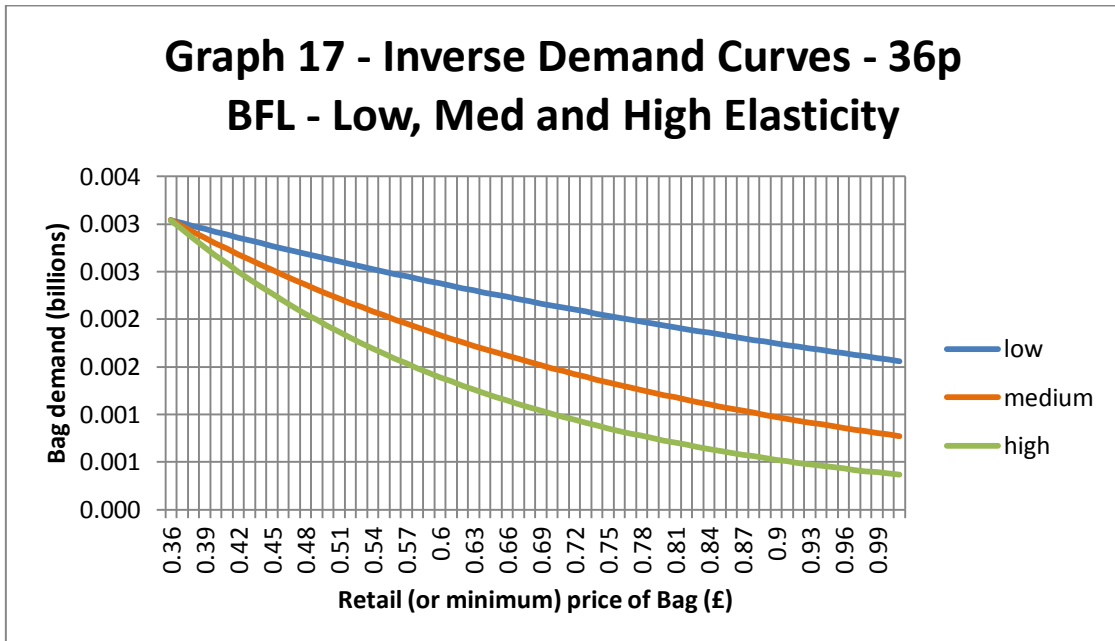
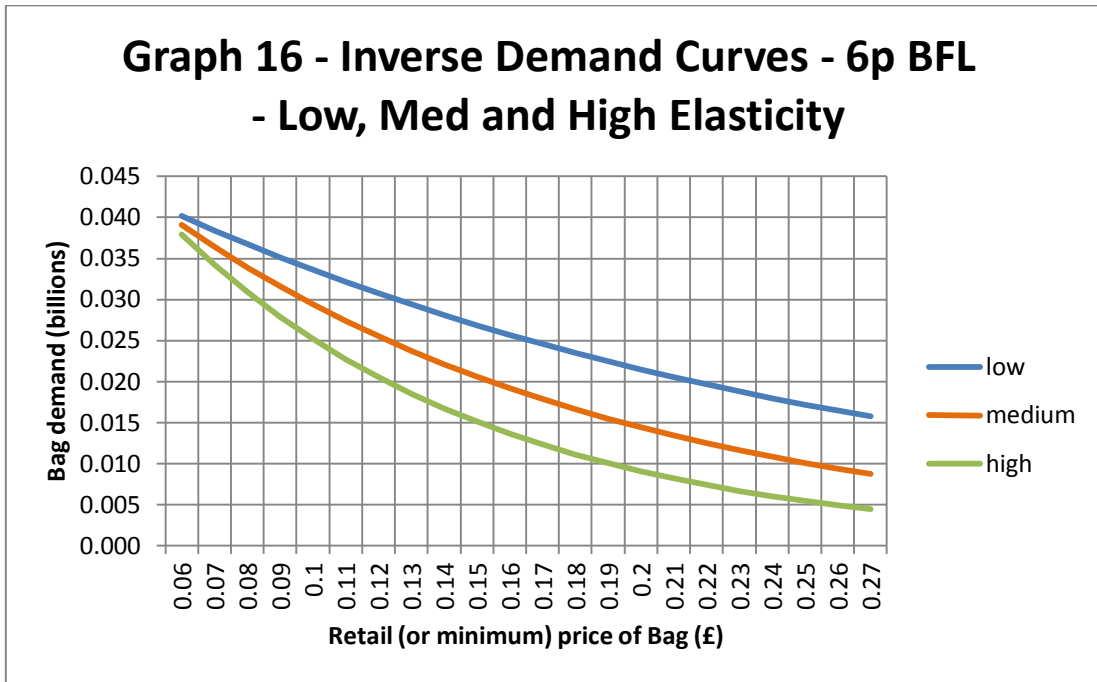
406. As the results of this analysis are dependent on how demand for each bag type changes, sensitivity analysis has been undertaken on the price elasticity of demand for 6p BFL, 36 BFL and Cotton bags. The below table shows how the low, medium, and high estimates of price elasticity of demand for each of these bag types was estimated, with the following graphs showing the inverse demand curves for these elasticities.

Table 22: Estimates of price elasticity of demand for each bag type

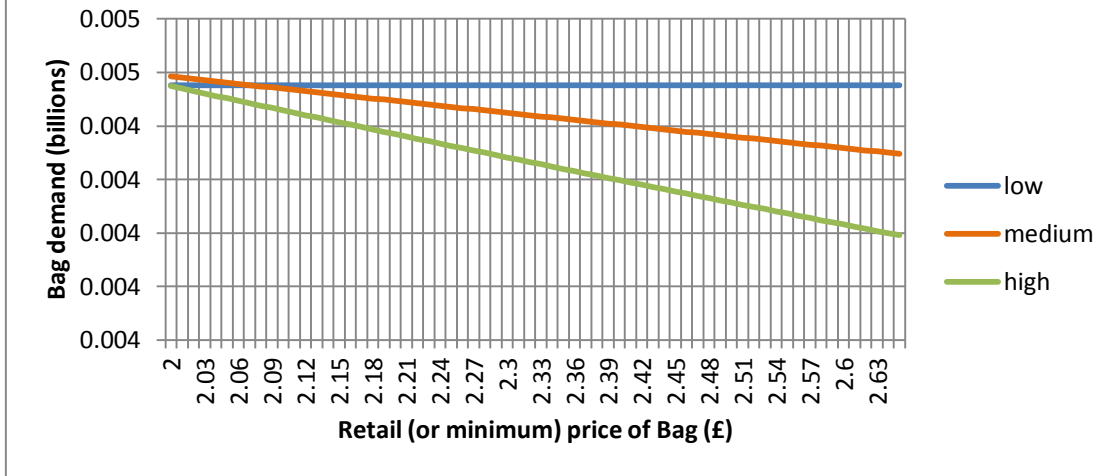
Bag	Original Price	Price After 5p Charge	% Change in Price	% Change in Demand
SUCB	0p	5p	N/A	-80%
6p BFL	6p	11p	45%	Low -20%
				Med -30%
				High -40%
36P BFL	36p	41p	13%	Low -5%
				Med -10%
				High -15%
Cotton Bag	£2.00	£2.05	2.5%	Low 0%

				Med -0.5%
				High -1%

407. 6p BFL are assumed to be less elastic than SUCBs, for 36p BFL it is assumed that if a consumer is purchasing a 36p BFL they are making a conscious effort to forgo cheaper options. Cotton bags are assumed to be the least elastic, as those who purchase textile BFL are forgoing cheaper options for the perceived environmental/social benefits.



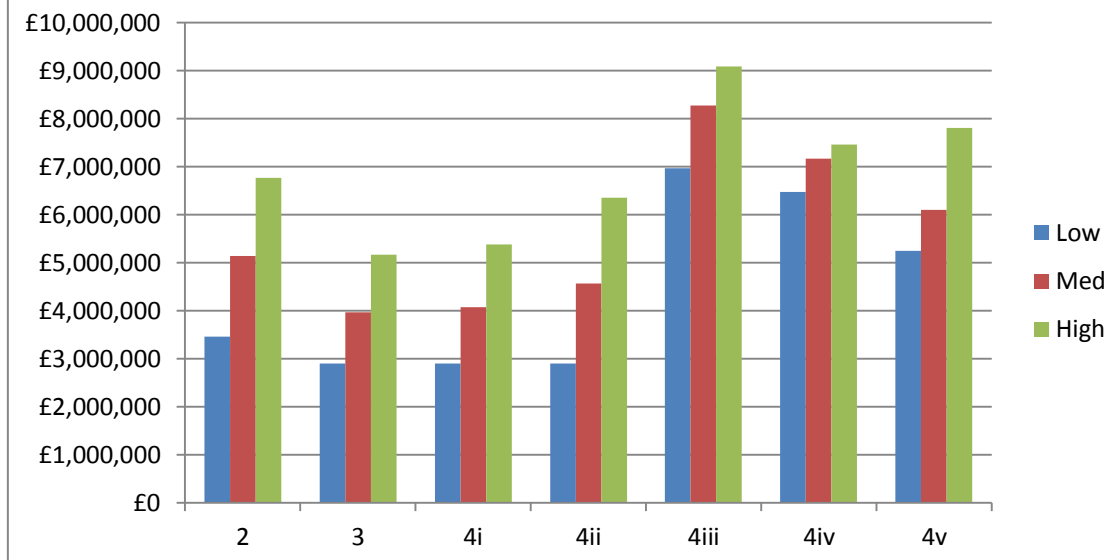
Graph 18 - Inverse Demand Curves - Cotton Bag - Low, Med and High Elasticity



408. As can be seen in graph 19 below, the Net Present Values of the options do vary slightly under the low, medium, and high elasticity scenarios. However, the rankings of the options do not change to a considerable degree, with Option 4iii remaining the preferred option. Some of the other options, for example Option 2, became better ranked under high and low elasticity scenarios, while others may do slightly worse. It should be noted that all options still remain positive compared to the baseline, thus demonstrating that the benefits of a range of charging regimes are likely to exceed the costs.

409. Overall, benefits are greater when demand curves are more elastic (that is, the change in demand in response to a change in price is stronger). This is likely to be because demand for bag types reduces more when demand is more elastic, and so more carrier bag demand is displaced to bags from which there are greater environmental benefits. This leads to greater benefit overall.

Graph 19 - Elasticity Sensitivity Testing - NPVs under Low, Medium and High Elasticity Scenarios



Cross Price Elasticity of Demand

410. Cross elasticity of demand measures the responsiveness of demand for one good to a change in price of another good. For example, how demand for SUCB may change as the price of BFL increase, and so some customers switch back to using SUCB.

411. In order to carry out the above analysis, some assumptions on how demand for different bag types change (or alternatively, to which bag types demand is displaced) following a charge on another bag type. In order to estimate this Ricardo-AEA looked at the carrying capacity and average usage of different bag types, and how a loss of carrying capacity from one bag type might be reapportioned to other bag types

412. The below table shows how carrying bag capacity lost is reapportioned to other bag types. Once this has been calculated it is then scaled back up to the number of bag types.

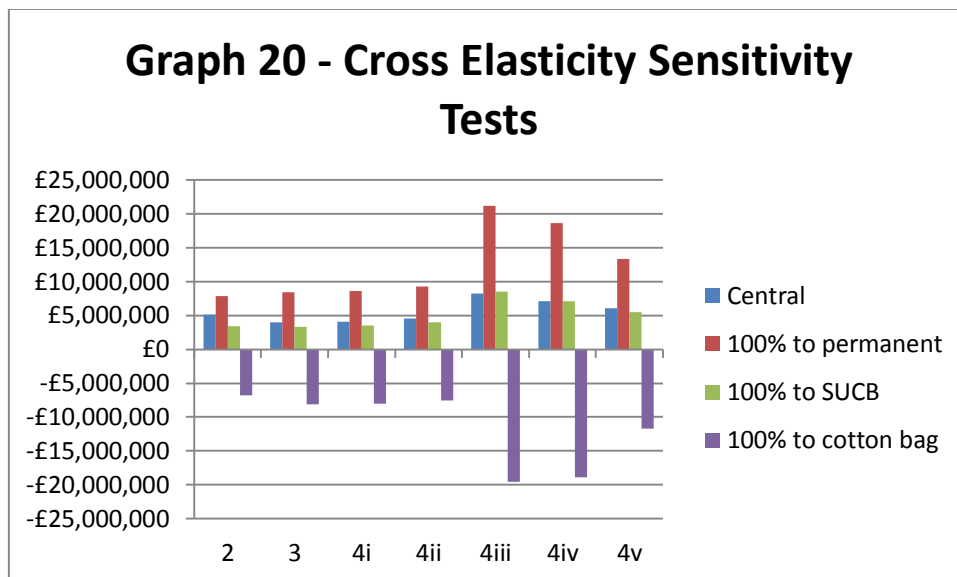
Table 23: Apportionment of bag type

Bag type displaced:	Switch to permanent bags	Switch to SUCBs	Switch to 6p BFL	Switch to 36p BFL	Switch to Cotton Bag
6p BFL	50%	25%	N/A	20%	5%
36p BFL	10%	N/A	N/A	N/A	90%
Cotton Bag	10%	N/A	N/A	90%	N/A

413. There are a number of combinations of cross elasticities that could be tested in the analysis. For this reason, three extreme scenarios have been tested, as follows:

- 100% switch to permanent bag use – this would have the lowest profitability for business.
- 100% switch to SUCB – SUCB have the lowest environmental sustainability per bag used.
- 100% switch cotton BFL – cotton BFL have the highest profitability for business.

414. As graph 20 below shows, these tests showed that the results and the order of the results are sensitive to extreme changes in the cross elasticity assumptions. In particular, NPV figures increase as the more people switch to permanent bags, as these are less damaging to the environment. Similarly, more people switching to cotton bags can make the NPV figures negative, as these bag types have a higher environmental cost. A greater switch to SUCBs would achieve NPV figures that are slightly worse than those in our central case.

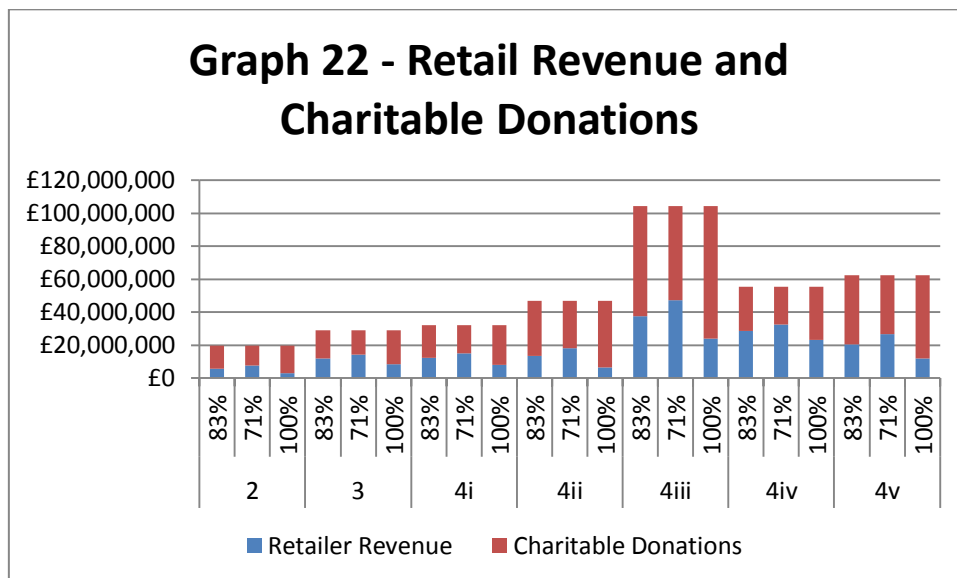
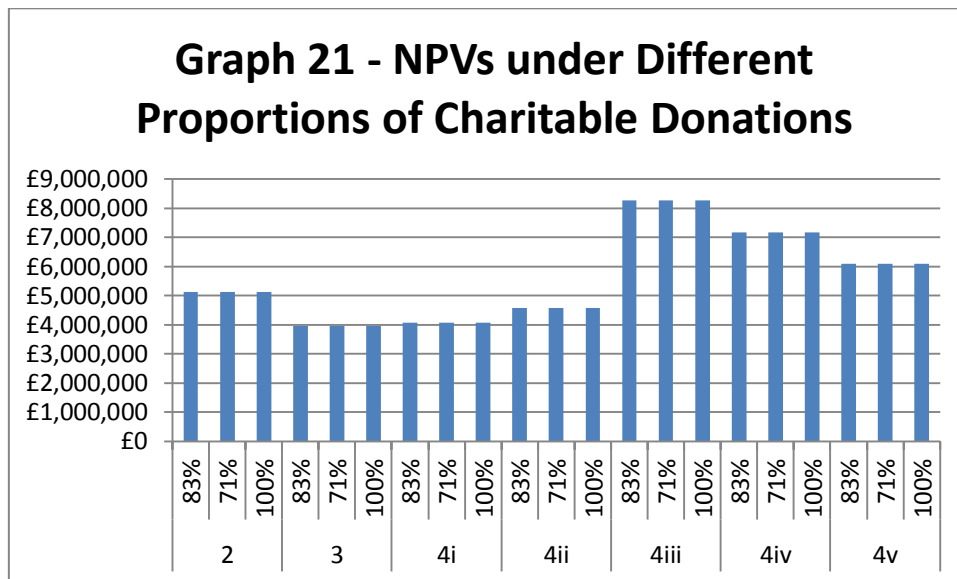


Charitable Contribution per bag sold

415. It is assumed that 83% of the 'charge' (i.e. the X pence increase from the original retail price to the new minimum retail price) placed on all bag types is donated to charity in the model. This assumption comes from a desk based study of 12 large retailers which found an average of 83% of revenue raised from carrier bag charges is donated to charities, with the lowest figure being 71%. It is also assumed that 80% of retailers will donate to charity, with the remaining 20% keeping the revenues for themselves.

416. Sensitivity testing has been undertaken on the proportion of charges donated to charity, using a lower bound of 71% and an upper bound of 100%.

417. As shown in graphs 21 and 22 below, Net Present Values remain the same for all Options as under the central scenario. Instead, different amounts of revenue go to retailers and charities compared to the central case.



Water Quality Impacts

418. The impact on water quality has not been monetised in this analysis. However it is not anticipated that inclusion of water impacts would make any difference to the order preference of the options. This is because the cost on water quality of bags is likely to be low – for example 0.03p per SUCB.

Part 3: Application of net proceeds

419. The purpose of this proposal is to impose a duty on sellers to apply the net proceeds of the carrier bag charge to good causes as specified in Regulations. This proposal will also have the effect of removing the limitation in paragraph 4A of Schedule 6 to the Climate Change Act 2008 so that sellers will not be limited to applying those net proceeds to environmental good causes only. As a result, those sellers who currently give the net proceeds of the charge to non-environmental good causes will not be affected as they will not need to change their current arrangements with their chosen good cause.

420. For the purpose of this Regulatory Impact Assessment it is important to note that all of the options below are explored under the current charging regime, where a five pence charge applies to single use carrier bags.

Option A - 'Do Nothing' (Baseline Option) – Keep the current power in paragraph 4A of Schedule 6 to the Climate Change Act and in the Single Use Carrier Bags (Wales) Regulations 2010 as they stand.

421. The power in paragraph 4A would remain in Schedule 6 but would not be exercised. The Single Use Carrier Bags (Wales) Regulations 2010 would continue to apply as they do now and Welsh Ministers would rely on voluntary agreements with the retailers to encourage them to apply the net proceeds of sales to good causes. This option is the baseline against which to compare the other 'intervention' options. There would be no additional costs or benefits from this option.

Option B – Rely on the current power in the Climate Change Act 2008 to amend the Single Use Carrier Bags (Wales) Regulations 2010.

422. This option would result in all retailers being required through Regulations to donate the net proceeds of the charge to environmental good causes only. The difference between this Option and Option A is that the power in paragraph 4A to require donation of net proceeds to environmental good causes would be used.

Option C (Preferred Option) – Amend the existing power in the Climate Change Act 2008 so that regulations may require the net proceeds of the charge to be applied to any good cause and then rely on that power to amend the Single Use Carrier Bags (Wales) Regulations 2010.

423. This option would mean that all retailers would be subject to a duty to donate their net proceeds of the charge to any good cause as specified by Regulations. This duty would not only allow for a transparent and consistent approach across Wales but would also allow the Welsh Ministers to exercise the new power by way of Regulations without cutting across the existing relationships that retailers have already established with their chosen good causes. As a result sellers would no longer have the option of retaining the proceeds of the charge by opting out of the current voluntary

agreement and only those sellers not currently donating the net proceeds of the charge would be affected.

424. The difference between this option and Option B is that the sellers would be able to donate their net proceeds to any good cause instead of only being able to donate to environmental good causes.

Option D - Amend the existing power in the Climate Change Act 2008 so that the regulations may require sellers to apply the net proceeds of the charge to any good cause but do not exercise the power to amend the Single Use Carrier Bags (Wales) Regulations 2010.

425. Compared to Option A, this Option changes the current powers to allow sellers to donate to non-environmental causes in addition to environmental good causes. Like Option A, this is not actually exercising the power in Regulations.

426. This option is equivalent to Option C but without amending the Regulations. That is, it would entail a voluntary agreement.

Part 3: Costs

427. This chapter contains the cost benefit analysis of the each of the options set out for the provision to remove the limitation in paragraph 4A of the Climate Change Act 2008 so that when the Welsh Ministers make provision in regulations, to require sellers to apply the net proceeds of the charge, the sellers will not be limited to applying those net proceeds to environmental good causes only. The analysis of this proposal explores how total charitable donations might vary between environmental and non-environmental charities under a number of options and charging scenarios.

Option A - 'Do Nothing' (Baseline Option) – Keep the current power in paragraph 4A of Schedule 6 to the Climate Change Act and in the Single Use Carrier Bags (Wales) Regulations 2010 as they stand.

428. Option A is the baseline against which we assess costs and benefits. For this reasons we do not present the costs and benefits of Option A, and instead present costs and benefits of Option B, C and D marginal to Option A.

Option B – Rely on the current power in the Climate Change Act 2008 to amend the Single Use Carrier Bags (Wales) Regulations 2010.

Business costs

429. For Option B there may be an increase in business costs, as under a mandatory agreement the number of businesses donating their proceeds will increase. In the Waste Wales Measure 2010 Regulatory Impact Assessment it was estimated that imposing such a duty on retailers could cost £505,000 per annum. This is based two 'returns' per annum at a cost

of £15 per large retailer and £30 per small retailer per return. However, as we believe a high proportion of retailers already donate, estimated at 80% for the purposes of this analysis, business costs will be smaller here. Assuming the proportion of retailers donating increases from 80% to 100% under Options B we can estimate an increase in business costs of $(20\% \times £505,000) = £101,000$ per annum. Calculated over 10 years, using a 3.5% discount rate, this gives a discounted cost of **£795,000** for business costs under Options B.

Monitoring and Enforcement costs

430. For Option B there may also be an increase in monitoring and enforcement costs, as a mandatory agreement is introduced. In the Wales Waste Measure 2010 Regulatory Impact Assessment it was estimated that costs for monitoring and enforcement for such action would be equal to 5% of a FTE in each local authority, equalling a total cost of £44,000 per annum. In addition there may also be communication costs of £40,000 in the first year. Calculated over 10 years, using a 3.5% discount rate, this gives a discounted cost of £386,000. £40,000 for the communication costs falls to Welsh Government, with the remaining £44,000 per annum falling to Local Authorities.

Reduction in revenue donated to environmental charities

431. For Option B it is assumed that participation rates increase so that all retailers will contribute or face risk enforcement actions by trading standards. The average proportion of the charge donated is then calculated based on this participation rate and the percentage of the charge actually donated. For Option B this is calculated as $83\% \times 100\% = 83\%$ compared to $80\% \times 83\% = 66\%$ under the baseline. This increase in the average proportion of the charge donated means that a greater amount of revenue is donated to charities compared to the baseline.

432. However, it is assumed that under Option B all revenue donated is donated to environmental charities, as required, and so the share of revenue donated to non-environmental charities is 0%. Overall, this means that there is a fall in the amount of revenue donated to non-environmental charities, compared to the baseline. This is estimated at **£7.0 million**, discounted over 10 years.

Option C (Preferred Option) – Amend the existing power in the Climate Change Act 2008 so that regulations may require the net proceeds of the charge to be applied to any good cause and then rely on that power to amend the Single Use Carrier Bags (Wales) Regulations 2010.

Business costs

433. Similarly to Option B, under Option C there may also be an increase in business costs, as under a mandatory agreement the number of businesses donating their proceeds will increase. As for Option B it is

assumed that under this option the number of retailers donating the proceeds of the charges to charity will increase from 80% to 100%. Therefore, we again estimate that business costs could increase by £101,000 per annum, or **£795,000** discounted over 10 years.

Monitoring and Enforcement costs

434. Again, similarly to Option B, there may also be an increase in monitoring and enforcement costs and Option C, as a mandatory agreement is introduced. Again this is estimated at a cost of £386,000, discounted over 10 years.

Option D - Amend the existing power in the Climate Change Act 2008 so that the regulations may require sellers to apply the net proceeds of the charge to any good cause but do not exercise the power to amend the Single Use Carrier Bags (Wales) Regulations 2010.

Business costs

435. It is not anticipated that there would be any additional business costs above the 'do nothing' baseline for Option D. This is because a voluntary agreement for donations would remain in place; therefore the number of businesses donating is unlikely to change, so costs are unlikely to differ from the baseline.

Monitoring and Enforcement costs

436. It is not anticipated that there would be any additional monitoring and enforcement costs above the 'do nothing' baseline for Option D. Similarly to the above, this is because a voluntary agreement for donations would remain in place, so there would be not costs associated with monitoring businesses and enforcing any legislation.

Reduction in revenue donated to environmental charities

437. For Option D it is assumed that participation rates remain at the same level as under the baseline, as the proposed policy alternation reflects changes to the destination for charitable donations rather than implementing enforcement measures as within Option B and C. Therefore there is no overall increase in the amount of revenue donated to charity.

438. However, there are some changes in the way the revenue is donated. As for Option C there is a slight fall in the proportion of revenues donated to environmental charities and slight increase in the proportion of revenues donated to non-environmental charities. Overall, it is assumed that 75% of revenues are donated to environmental charities compared to 80% under the baseline, and 25% donated to non-environmental charities compared to 20% under the baseline. This means that overall there is a decrease in the amount of revenue donated to environmental charities, estimated at **£1.7 million**, discounted over 10 years.

Part 3: Benefits

439. The analysis presented below draws on the outputs from the Cost-Benefit Analysis undertaken for the proposal to extend the powers in the Climate Change Act 2008 to enable Welsh Ministers to set a minimum charge for other types of carrier bags in addition to single use carrier bags (SUCB). In particular, the analysis of this option takes the 'charitable contributions' output from that model, and apportions the overall charitable contributions to environmental and non-environmental charities, respectively. It should be noted that all values presented below are over a 10 year period, and are discounted using a 3.5% discount rate.
440. In order to examine the potential donations to environmental and non-environmental charities, a number of assumptions had to be made about the number of retailers who donate. It is assumed, in the absence of solid data, that currently around 80% of retailers donate charges to charities. This 80% figure reflects the current expectation that, without powers of enforcement, retailers are able to evade donating under the voluntary agreements as it is currently established. Further to this, it is also assumed that 83% of the charge is actually donated to charities. This 83% figure comes from a desk study of 12 retailers, carried out by Ricardo-AEA, which found that this was the average proportion of the single use carrier bag charge donated to charity.

Option A - 'Do Nothing' (Baseline Option) – Keep the current power in paragraph 4A of Schedule 6 to the Climate Change Act and in the Single Use Carrier Bags (Wales) Regulations 2010 as they stand.

441. Option A is the baseline against which we assess costs and benefits. For this reasons we do not present the costs and benefits of Option A, and instead present costs and benefits of Option B, C and D marginal to Option A.

Option B – Rely on the current power in the Climate Change Act 2008 to amend the Single Use Carrier Bags (Wales) Regulations 2010.

Increase in revenue donated to non-environmental charities

442. For Option B it is assumed that participation rates increase so that all retailers will contribute or face risk enforcement action by trading standards. The average proportion of the charge donated is then calculated based on this participation rate and the percentage of the charge actually donated. For Option B this is calculated as $83\% \times 100\% = 83\%$ compared to $80\% \times 83\% = 66\%$ under the baseline. This increase in the average proportion of the charge donated means that a greater amount of revenue is donated to charities compared to the baseline.
443. It is assumed that under Option B all revenue donated is donated to environmental charities, as required. Overall, this means that there is an

increase in revenue donated to environmental charities. This is estimated at **£15.7 million**, discounted over 10 years.

Option C (Preferred Option) – Amend the existing power in the Climate Change Act 2008 so that regulations may require the net proceeds of the charge to be applied to any good cause and then rely on that power to amend the Single Use Carrier Bags (Wales) Regulations 2010.

Increase in revenue donated to environmental and non-environmental charities

444. Similarly to Option B, it is assumed that participation rates increase under Option C so that all retailers will contribute or face risk enforcement action by trading standards. The average proportion of the charge donated is calculated in the same way for Option B, as 83%. This increase in the average proportion of the charge donated means that a greater amount of revenue is donated to charities compared to the baseline.

445. It is assumed that under Option C there is a slight fall in the proportion of revenues donated to environmental charities and slight increase in the proportion of revenues donated to non-environmental charities. Overall, it is assumed that 75% of revenues are donated to environmental charities compared to 80% under the baseline, and 25% donated to non-environmental charities compared to 20% under the baseline. However, due to the size of the increase in total revenues donated to charities, both environmental and non-environmental charities experience an increase in revenue donated to them. This is estimated at **£4.8 million** to environmental charities and **£3.9 million** to non-environmental charities, discounted over 10 years.

Option D - Amend the existing power in the Climate Change Act 2008 so that the regulations may require sellers to apply the net proceeds of the charge to any good cause but do not exercise the power to amend the Single Use Carrier Bags (Wales) Regulations 2010.

Increase in revenue donated to non-environmental charities

446. For Option D it is assumed that participation rates remain at the same level as under the baseline, as the proposed policy alternation reflects changes to the destination for charitable donations rather than implementing enforcement measures as within Option B and C. Therefore there is no overall increase in the amount of revenue donated to charity.

447. However, there are some changes in the way the revenue is donated. As for Option C there is a slight fall in the proportion of revenues donated to environmental charities and slight increase in the proportion of revenues donated to non-environmental charities. Overall, it is assumed that 75% of revenues are donated to environmental charities compared to 80% under the baseline, and 25% donated to non-environmental charities compared to 20% under the baseline. This means that overall there is an increase in the

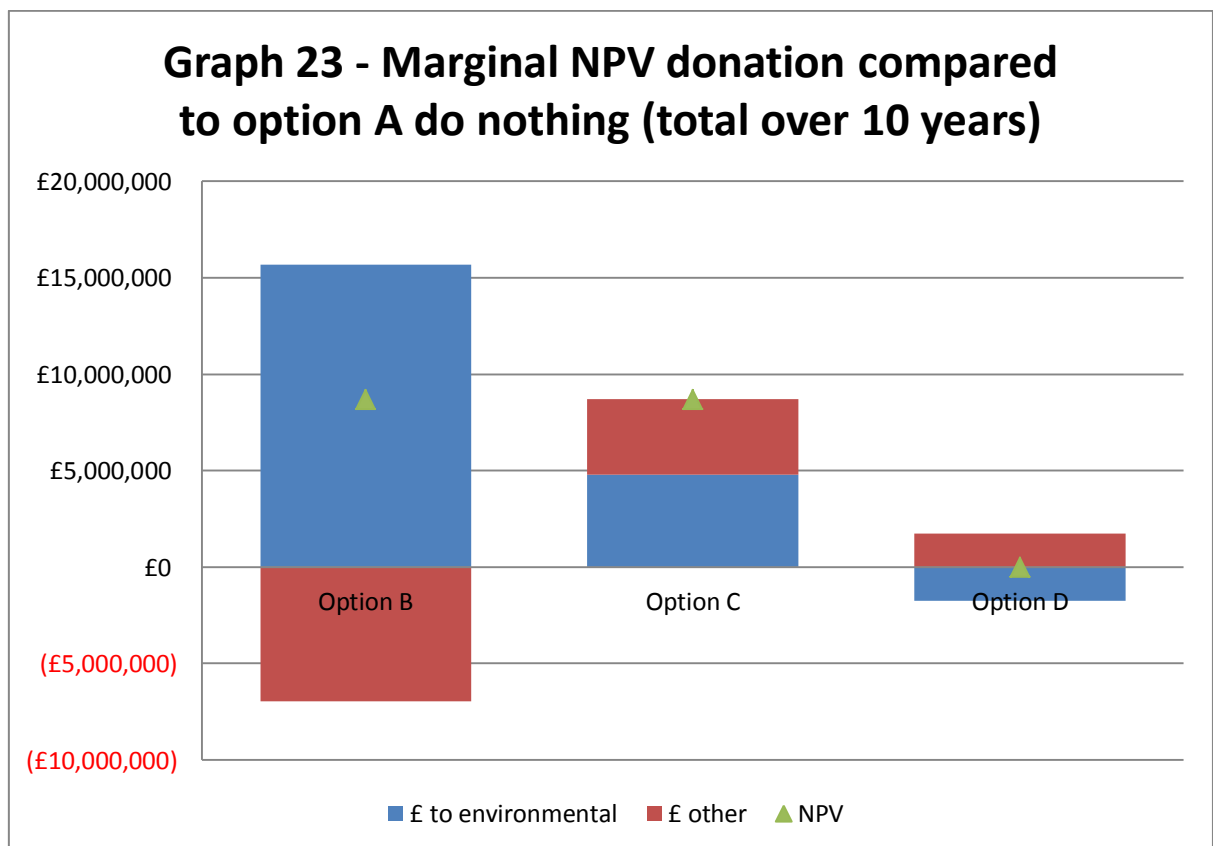
amount of revenue donated to non-environmental charities, estimated at **£1.7 million**, discounted over 10 years.

448. A summary table (Table 25) of the assumptions regarding charitable donations is provided in the Assumptions, Risks and Sensitivity Analysis where the estimated impact on donations to environmental and non-environmental charities is presented.

Part 3: Summary and Preferred Option

449. In summary, the amount of charitable revenue donated to environmental and non-environmental charities (marginal to the baseline) is heavily dependent on which option is chosen in this proposal.

450. Graph 23 below shows how donations to environmental and non-environmental charities could potentially look, under Options B, C and D compared the baseline (Option A).



451. Overall both Options B and C result in the higher levels of compliance and therefore the greater amounts of donations to charity, with environmental charities benefiting from increased revenues donated under both options, compared to the baseline. As can be seen, both Option B and C lead to the same increase in overall donations to charity, however Option C also provides benefits to non-environmental charities, unlike Option B. This is a result of the requirement under Option B that all revenues must be donated to environmental charities. This means revenues currently donated to non-

environmental charities would be transferred to environmental charities, in addition to the increase in revenues donated to environmental charities as a result of an increased number of retailers donating. For Option C, the increase in total revenues donated means both environmental and non-environmental charities benefit, despite a small decrease in the proportion of revenues donated to environmental charities.

452. For Option D, there is no net impact on charities as a whole compared to the baseline. This is because it is assumed that there would not be a change in the proportion of retailers donating to charity, as a voluntary agreement would remain in place. It is also assumed that there is no change in the proportion of charges that are donated to charity. This means that overall there is no increase or decrease in donations to charity under Option D compared to the baseline (Option A). The only difference between Option D and the baseline is that it is assumed that a small number of retailers could switch some of their donations from environmental charities to non-environmental charities, in anticipation of the regulations being enacted. This switch means that only 75% of donations may go to environmental charities, compared to 80% under the baseline (Option A). Resulting in a possible transfer of revenue from environmental charities to non-environmental charities under this option, which is estimated at £1.7 million.
453. Therefore, as Option C leads to the (joint) largest increase in revenues to charities and, unlike Option B and D, is expected to result in increases in donations to both environmental and non-environmental charities, it is our preferred option and demonstrates the highest net benefits.
454. Option C amends the Climate Change Act 2008 to remove the limitation in paragraph 4A so that when the Welsh Ministers make provision in regulations, to require sellers to apply the net proceeds of the charge, the sellers will not be limited to applying those net proceeds to environmental good causes only. This option will provide greater transparency and consistency for all sellers of carrier bags subject to a charge and will also ensure that when the duty to apply the net proceeds of the charge to good causes is exercised; only those sellers not currently donating the net proceeds of the charge to good causes will be affected. By removing the existing limitation, those sellers currently donating their net proceeds to non-environmental good causes would be able to continue to do so without cutting across any existing relationships they have with non-environmental good causes.
455. It should be noted that in the analysis of the options presented above, the only difference in the modelling of charitable donations under Option C and Option D is that 100% of retailers are assumed to donate under Option C compared to 80% under Option D.
456. The result of this is that for Option D donations do not increase overall, although there is a small transfer of donations from environmental charities to non-environmental charities.

457. As highlighted above, for Option C, the analysis indicates that the total level of donations to charities is expected to increase overall compared to the ‘do nothing’ baseline. In addition, both environmental and non-environmental charities are expected to receive a greater level of donations. This is a result of the assumptions that 100% of retailers will donate their revenues to charities, compared to 80% under the baseline and Option D. This overall increase in the proportion of retailers donating means that environmental charities will also have an increase in donations to them, despite a fall in the proportion of revenue donated to them (75% compared to 80% under the baseline). The increase in the proportion of retailers donating to non-environmental charities, and the decrease in the proportion of retailers donating to environmental charities may be the result of retailers who do not currently donate their net proceeds, being more likely to donate to non-environmental charities instead of environmental charities, under Option C. The analysis undertaken by Ricardo AEA highlighted that it was likely that where established relationships already existed between retailers and charities, these relationships were less likely to be impacted by this change.

458. The tables below summarises the estimated impacts of all options, and shows the potential scale of the transfer between environmental and non-environmental charities under the current charging regime.

Table 24: Summary of donations

	Option B	Option C	Option D
Potential change in donations to environmental charities	+£15.7m	+£3.9	-£1.7m
Potential change in donations to non-environmental charities	-£7.0m	+£4.8	+£1.7m
Potential Total Change in Donations	+£8.7m	+£8.7m	£0m
Business Costs	£0.795m	£0.795m	£0m
Monitoring and Enforcement Costs	£0.386m	£0.386m	£0m
Net Present Value	£7.52m	£7.52m	£0m

Part 3: Assumptions, Risks and Sensitivity Analysis

459. This analysis draws on a number of the same assumptions as those made in the analysis for the proposal for minimum charges to be set for other types of carrier bags. In particular, demand for bags is calculated in the same way, with the same price elasticity assumptions and cross price elasticity assumptions. This proposal also examines the same bag types. For information on these assumptions, please refer to the ‘Assumptions, Risks and Sensitivity Analysis’ section of the Regulatory Impact Assessment. (Paragraphs 393 to 415).

460. The key difference in the assumptions for this proposal, from that in the proposal for minimum charges to be set for other types of carrier bags, are around the proportions of retailers donating to charity, proportions of the charges donated, and proportions of total donations received by environmental and non-environmental charities. These assumptions have been alluded to in the 'Benefits' section above on page 5, and are summarised in the following table.

Table 25: Summary of assumptions for the Application of Net Proceeds Proposal

Proposal 2		Option			
		A	B	C	D
Proportion of total potential charge revenue which result in contributions	= (W*X)+(Y*Z)	66%	83%	83%	66%
W– Proportion of retailers in group	This is the proportion of retailers who charge for bags and pass on some of that charge to charity	80%	100%	100%	80%
X- Average donation for group	This is the proportion of the charge passed on to charities.	83%	83%	83%	83%
Y– Proportion of retailers in group	This is the proportion of retailers who evade the charge	20%	0%	0%	20%
Z- Average donation for group	This reflects no charge being passed on to charities	0%	0%	0%	0%
Proportion of all contributions passed on to environmental charities		80%	100%	75%	75%
Proportion of all contributions passed on to non-environmental charities		20%	0%	25%	25%

461. The order of options, in terms of total revenue donated to charity, depends on the proportion of retailers who are compliant with the charge, how much of the charge is donated to good causes, and what proportion of total donations goes to environmental and non-environmental charities respectively.

462. Sensitivity analysis undertaken by Ricardo-AEA came to the conclusion that if retailer participation in the charge was less than 85% for Option C (compared to 100% normally and 80% under Option A and D), the increase in donations due to retailer participation would not offset the losses to environmental good causes. Therefore, the impact on environmental charities would be negative compared to the baseline, although non-environmental charities would still benefit. Only if retailer participation didn't increase from 80%, or if enforcement of the legislation added significantly

additional costs to the retailer, would the overall proportion of revenues donated be 66% or below, making total donations under Option C, less than Option D and the Option A (the baseline).

463. Another sensitivity test explored a scenario in which Option D would result in a greater amount of revenue being donated to charity than Option C. As an example, if 74% of potential revenue was donated under the baseline and Option C, and 75% for Option D, then Option D could result in the greatest overall donations to charity. These proportions could be achieved by a greater proportion of the charge being donated to charity under Option D compared to the other options. However, the likelihood of this is uncertain.
464. As would be expected, any increase in either the proportion of retailers donating, or the proportion of the charge actually donated, for each of the options, would increase the amount of revenue going to charities as a whole. Changes to the proportions being received by environmental and non-environmental charities would change the extent these charities benefit/lose under each of the options.

Part 4: Collection and Disposal of Waste

Options Analysis

465. The Bill is intended to provide the Welsh Ministers with the powers to make secondary legislation and will not in itself result in any additional costs or benefits. When the regulations that enact the powers are laid they will be accompanied by a detailed Regulatory Impact Assessment.

466. For the purpose of this Regulatory Impact Assessment, the impact of two options has been assessed against a baseline scenario. The analysis presents a best estimate of costs and benefits based upon the currently available information.

467. The preferred option of the Welsh Government is Option 3 (below).

Option 1: Do Nothing: Rely on existing mechanisms, principally:

468. Option 1 is the baseline against which we assess costs and benefits. It will apply the requirement of the Waste (England and Wales) Regulations 2011 (as amended) to separately collect paper, plastic, glass and metal; and the landfill tax.

Option 2: Provide the Welsh Ministers with powers to extend existing recycling requirements

469. This option will require businesses and the public sector to present specified recyclable waste materials separately for collection; it will require persons who collect waste to collect specified recyclable waste materials separately (in addition to those required by the Waste (England and Wales) Regulations (as amended) as above); and will place a ban on the disposal of food waste to sewer from non-domestic premises.

470. There are a number of market failures that currently prevent the business waste management sector from operating at a socially optimal level. These include the number of waste operators operating in some areas (imperfect competition); lack of available source segregated recyclate as waste producing businesses are not required to source segregate recyclable waste materials; a lack of information amongst waste producers on waste management options and high search costs (for example the time spent by a company looking for a recycling service provider); lack of convenient collection or bring facilities and externalities in some waste treatment processes.⁶⁹ Such market failures result in an over production of waste and a reliance on sub-optimal waste disposal and treatment methods. This option will go some way to addressing these market failures by providing producers with greater access to recyclate collection services and by ensuring that greater amounts of recyclable materials are available for

⁶⁹ *Eunomia Research & Consulting (2011) Options for the Segregation and Collection of Welsh I & C Waste, Report to the Welsh Government, (November 2011)*

collection by the waste management industry, thereby increasing the financial viability of collection.

Option 3: To supplement existing policies, provide the Welsh Ministers with powers to extend existing recycling requirements and prohibit the incineration or landfilling of certain waste materials:

471. This option will require businesses and the public sector to present specified recyclable waste materials separately for collection. It will require persons who collect waste to collect specified recyclable waste materials separately (in addition to those required by the Waste (England and Wales) Regulations (as amended) as above). It will place bans on the incineration of specified waste materials, the landfilling of specified waste materials; and the disposal of food waste to sewer from non-domestic premises.

472. As mentioned above, there are a number of market failures that currently prevent the business waste collection sector from operating at a socially optimal level. In addition to the benefits associated with Option 2, the inclusion of a ban on the landfill or incineration of specified waste materials means that this option goes further in correcting the existing market failures. This option will support and be supported by work the Welsh Government is carrying out in other areas, for example by creating more extensive local markets for the collected recycle in Welsh manufacturing companies via the Waste and Resource Action Programme (WRAP).

473. This is the preferred option of the Welsh Government.

Part 4: Costs

474. The analysis is largely based on scenario modelling carried out for the Welsh Government by Eunomia Consulting and Research Ltd,^{70,71} and by the Waste and Resources Action Programme (WRAP)^{72,73}. The modelling assumed, for each option, that the policy is fully enacted by 2017 after being announced in 2014, with there being in effect a lead-in time over the preceding years as businesses progressively change their behaviour in line with the policy up until this point. The following sections provide a summary of that research.

⁷⁰ Eunomia Research & Consulting (2013) *Additional Policy Options Analysis for Welsh Government: Costs and Benefits of Extending WFD requirements, Waste Treatment Restrictions, Requirement to Sort and a Ban on Food the Disposal of Food Waste to Sewer* (May 2013)

⁷¹ Eunomia Research & Consulting, (2014) *Additional Policy Options Analysis for Welsh Government: Costs and Benefits of Extending Waste Framework Directive requirements, Waste Treatment Restrictions, Requirement to Sort and a Ban on the Disposal of Food Waste to Sewer - Aggregated Outputs for Welsh Government Environment Bill: Results Update 2015*

⁷² WRAP (2015), *Cost Assessment of Wales Environment Bill Measures on Business Waste Producers*

⁷³ WRAP (2015), *Cost Assessment of Wales Environment Bill Measures on Business Waste Producers in the Construction & Demolition Sector*

Option 1: Do Nothing: Rely on existing mechanisms

475. As this option proposes no change, there are no additional financial costs associated with it (though there will be ongoing costs and benefits not realised).
476. However, the option carries considerable risk to the sustainability of our businesses and natural resources.
477. Research and modelling⁷⁴ carried out for the Welsh Government on commercial and industrial waste collection has identified failures in the waste collection market, including lack of convenient collection services and cost. The research suggested that the market failures are unlikely to be resolved in the absence of legislation.
478. Failure to act will mean that businesses and the public sector are not provided with a quality recycling service - potentially recyclable materials will continue to be sent to landfill or incineration facilities. There will be no consequent decrease in dependence on primary material resources and improvement to resource security.
479. The Welsh Government could also be accused of failing to meet its commitments. No intervention on increasing the recycling and recovery of materials increases the risk of failing to meet European Union targets and substantial fines from EU infringement proceedings.

Option 2: Provide the Welsh Ministers with powers to extend existing recycling requirements

480. Though this option addresses some of the issues around low recycling rates, it is unlikely to provide the high quality waste collection services that results from the preferred option (Option 3, below). This has been identified by stakeholders as a key requirement in achieving high levels of good quality recycling. Under this option, waste collectors failing to achieve high levels of separate collection could send residual waste contaminated with high levels of recyclable material to landfill or incineration facilities.
481. Modelling⁷⁵ carried out for the Welsh Government estimates that relative to Option 3 (below) less recycling of material would take place and that the extent of benefits realised in terms of the economy and the environment would be smaller.

⁷⁴ Eunomia Research & Consulting (2011) *Options for the Segregation and Collection of Welsh I & C Waste, Report to the Welsh Government, (November 2011)*

⁷⁵ Eunomia Research & Consulting, (2014) *Additional Policy Options Analysis for Welsh Government: Costs and Benefits of Extending Waste Framework Directive requirements, Waste Treatment Restrictions, Requirement to Sort and a Ban on the Disposal of Food Waste to Sewer - Aggregated Outputs for Welsh Government Environment Bill: Results Update 2015*

482. The costs to the different sectors are presented below.

Business Waste Producers

483. In addition to commercial and industrial premises, the term business waste producers includes public sector institutions and charities. The scale of costs (or savings/benefits) to the producers depends in part on factors such as market competition and innovation to drive down costs to customers, awareness of the business waste producers to the services available and their response to increased costs of residual waste collection. Business waste producers may incur costs in two areas – administration costs related to changes in practice and ongoing costs (or savings) related to the collection of their waste materials. The two costs are dealt with below.

Administration costs

484. These administration costs occur only during the three year transition period as waste producers prepare for the new collection system. The costs are associated with the purchase of new containers and adapting to the new recycling system (including administrative and management time).

Table 26: Administration costs to business waste producers – option 2

Description	Annual impacts during policy transition period		
	2015	2016	2017
Adopting new bin system (administration time)	£1,183,600	£394,500	£394,500
Adopting new bin system (management time)	£591,800	£197,300	£197,300
Purchase of new containers	£258,500	£86,200	£86,200
Adoption new bin system - C&D businesses	£11,100	£3,700	£3,700
Total	2,045,000	681,700	681,700

Costs of the separate collection of recyclable materials to business waste producers

485. Determining the impact of the proposals on waste producing businesses is difficult due to the number of variables involved. As noted above, whether waste producers incur additional ongoing costs as a result of these proposals depends upon the waste collection market in their area, the contract each individual waste producer negotiates and how each business adapts in light of the new requirements.

486. The initial (Eunomia) modelling carried out for this proposal did not model costs or benefits to business waste producers – in the modelling, the overall impact on the waste market was included in the costs and benefits (cost-

savings) to waste management businesses. However, in a well functioning waste collection market it is expected that a proportion of these costs and savings would be passed to the waste producer.

487. In 2013, the Welsh Government commissioned WRAP to produce two assessments^{76,77} of the financial implications of additional waste segregation for Welsh businesses. The first study looked at the Commercial and Industrial sector (hospitality, retail, manufacturing, admin/office, education and health sectors) and the second study looked at the Construction and Demolition sector.
488. These assessments are based on 'typical' businesses and are intended to provide an indication of the potential impact of the proposals on businesses in Wales. The assessment compared the costs of the services businesses currently use (in 2017 prices allowing for a year of additional landfill tax increase) to the likely cost of a service that would meet the new requirements.
489. The first study (Commercial and Industrial sector) shows that businesses producing smaller amounts of waste are more likely to see an increase in their annual waste collection costs. This impact is reduced where the businesses do not currently use any sort of recycling service. The modelling suggests that there are scenarios in which annual waste collection costs may rise by more than 50%. In the most extreme scenario in which separate food waste collection is extended to all waste producers, the additional cost to a typical business producing small amounts of waste is expected to be less than £700 per annum.
490. At the other end of the scale, the modelling suggests that the impact on waste collection costs for larger waste producers is likely to range from an annual cost saving of up to £18,500 to an additional annual cost of £3,700 depending upon the scenario considered and the sector in which the business operates. Cost increases to larger businesses are more likely in scenarios where greater segregation of waste is required or where the businesses are currently using 'co-mingled' recycling services. In contrast, the research suggests that some businesses producing larger amounts of waste that don't currently use recycling services or which use segregated recycling services are likely to see a reduction in their annual waste management costs. In general, where increases in waste management costs are incurred by these businesses, they are expected to be smaller costs (in percentage terms) than those experienced by businesses producing small amounts of waste.
491. Where a business does experience an increase in waste management costs this may have an adverse impact on competitiveness. This is particularly true where competitors are based in England and are not currently subject to similar requirements.

⁷⁶ WRAP (2015), *Cost Assessment of Wales Environment Bill Measures on Business Waste Producers*

⁷⁷ WRAP (2015), *Cost Assessment of Wales Environment Bill Measures on Business Waste Producers in the Construction & Demolition Sector*

492. The second study (Construction and Demolition sector) found that the 'typical' business in each sub-sector (demolition; construction; civil engineering and general building) was expected to benefit from waste management cost-savings as a result of increased waste segregation. The composition of waste arisings in each sub-sector determined the scale of the potential cost-savings. Waste management costs in the demolition and civil engineering sub-sectors are dominated by the disposal of soil and aggregates, neither of which will be affected by the proposals.
493. It is important to note that no assumptions were made in the two WRAP assessments regarding the level of saving that would be passed onto the waste customer by the waste management companies. However, as observed above, it is reasonable to expect market forces to result in the waste management companies passing at least some of the savings they generate (see below) to the customer thus, reducing costs the modelled costs to the customer.
494. It is expected that the new requirements will encourage businesses in Wales to use resources and materials more efficiently. The extent to which businesses will be able to do this depends upon the resources and expertise at their disposal and the availability of information on which to base decisions. Larger businesses are generally better placed to adopt more resource efficient practices.
495. The Welsh Government will take a number of steps to mitigate any negative impact on businesses, including action to develop the market for recycled materials; development of business advice packages to help businesses manage their wastes better and more cost effectively and a sufficient lead-in time to allow businesses to adapt and make suitable arrangements.
496. Similar waste separation and collection requirements were introduced in Scotland in January 2014. While it is too early for there to have been a formal evaluation of the scheme, the initial (high level) indications suggest that the new requirements are not having a significant impact on businesses in Scotland, with the stock of private sector businesses growing during 2014.

Costs to Waste Management Businesses

497. The Welsh Government commissioned Eunomia Consulting and Research Ltd to undertake modelling work of the proposals for waste, focusing on the impact on the waste management sector. The following section provides a short summary of that modelling work. A more detailed explanation of the estimated costs and cost-savings and the assumptions underpinning those estimates is available from the original modelling report and the subsequent update reports produced by Eunomia⁷⁸⁷⁹⁸⁰⁸¹.

⁷⁸ *Eunomia Research & Consulting (2011) Options for the Segregation and Collection of Welsh I & C Waste, Report to the Welsh Government, (November 2011)*

498. The waste management industry includes waste collection companies, operators of intermediate storage and treatment facilities such as waste transfer stations and end stage recovery and disposal facilities such as energy from waste facilities and landfill sites. Though the waste management industry is expected to experience an overall benefit from this option (see paragraph 521, below), it will be expected to experience some costs, for example in the areas of re-equipping with vehicles and containers, the training of staff and communication with customers.
499. The financial impact of the proposals on waste management businesses can be split between the following:
- The change in the capital and operating costs of waste treatment and waste collection.
 - Revenue from the sale of recyclate material.
 - Avoided landfill tax.
500. Both the capital and operating costs vary depending on the type of waste collected and/or treated. The capital costs include the following:
- Cost of landfill - effectively an “avoided cost” (or benefit) in the model where waste is switched out of landfill.
 - Cost of waste containment - this will vary depending on the type of material collected.
 - Cost of vehicles used in residual waste and recycling collections, also dependent on the type of material collected.
501. The operating costs include the following:
- Labour costs.
 - Maintenance costs of both the treatment plant (landfill) and recycling infrastructure.
 - Fuel costs.
 - Revenue from the sale of electricity generated at the landfill.
502. A breakdown of these costs for the policy options is presented in table 27. A more detailed breakdown of these costs (by year) is shown in Table 30 (summary table).

⁷⁹ Eunomia Research & Consulting (2013) *Additional Policy Options Analysis for Welsh Government: Costs and Benefits of Extending WFD requirements, Waste Treatment Restrictions, Requirement to Sort and a Ban on Food the Disposal of Food Waste to Sewer* (May 2013)

⁸⁰ Eunomia Research & Consulting (2013) *Additional Policy Options Analysis for Welsh Government: Costs and Benefits of Extending WFD requirements, Waste Treatment Restrictions, Requirement to Sort and a Ban on Food the Disposal of Food Waste to Sewer - Aggregated Outputs for Welsh Government White Paper* (September 2013)

⁸¹ Eunomia Research & Consulting, (2014) *Additional Policy Options Analysis for Welsh Government: Costs and Benefits of Extending Waste Framework Directive requirements, Waste Treatment Restrictions, Requirement to Sort and a Ban on the Disposal of Food Waste to Sewer - Aggregated Outputs for Welsh Government Environment Bill: Results Update 2015*

503. The modelling shows additional capital and operating costs of between £10.5 million and £17.6 million per annum as a result of the requirement to collect specified recyclable waste materials separately. Over the ten-year appraisal period, this totals approximately £165.7 million.
504. This option is expected to result in additional recyclate being collected and a reduction in the volume of waste being sent to landfill. This is expected to benefit waste management businesses in two ways. First, the increase in the volume of recyclate collected is expected to result in an increase in the revenue generated from the sale of the recyclate material. The Eunomia modelling suggests that this additional revenue will be between £4.9 million and £8.2 million per annum or approximately £76.7 million over the ten-year appraisal period. Second, the reduction in the volume of waste being sent to landfill will reduce the amount of Landfill Tax that waste management businesses are required to pay⁸². The modelling suggests that the reduction in Landfill Tax paid will be between £11.1 million and £18.5 million per annum or approximately £174 million over the appraisal period.
505. The net impact is an estimated £85 million cost-saving/benefit to waste management businesses over the ten-year appraisal period. However, as noted above, it is anticipated that competitive forces will result in waste management businesses passing at least some of these cost-savings onto waste producers.

Table 27: Breakdown of Financial Costs to Waste Management Businesses

	Financial costs to waste management businesses, £ 000 (2015-2024) – Option 2
Annualised capex and opex	£165,678
Avoided landfill tax	- £174,038
Materials revenue	- £76,677
NET FINANCIAL COST⁸³	- £85,037

Administrative Costs

506. Waste management companies are expected to incur some upfront costs as they adapt to the new requirements and organise new collection systems and processes for waste producers. These costs are expected to be incurred in the period 2015 to 2017 as outlined in the table below.

⁸² While this is a benefit to waste management businesses, there is an equivalent cost to HM Treasury as a result of lost tax revenue. The net impact of this on the UK economy is neutral.

⁸³ The Eunomia modelling assumed that businesses take a shorter term view than the Government when borrowing money and therefore used a discount rate that is higher than the standard HM Treasury discount rate when calculating annualised capital expenditure. As a result the modelling report shows an additional 'Other cost' of approximately £14 million in this option. This RIA uses the standard HM Treasury discount rate of 3.5% and so this cost is excluded.

Table 28 – Administrative costs to waste management businesses – option 2

Description	Annual impacts during policy transition period		
	2015	2016	2017
Organise new collection system for businesses	£595,300	£198,400	£198,400

Manufacturers and suppliers of Food Waste Disposal Units

507. As part of the White Paper consultation the Welsh Government met with manufacturers and suppliers of food waste disposal units and their representative bodies. From the meetings we understand that for the majority of these businesses, food waste disposal units for the purposes of disposal to sewer represent a small part of the businesses output and we have not therefore quantified this cost. While the actual cost is not known, discussions with the businesses concerned suggest that the cost is expected to be minimal

Waste Producers treating and disposing of food waste using Food Waste Disposal Units

508. Establishments such as hospitals and hospitality businesses that use macerators to treat and dispose of food waste may incur costs or benefits above the baseline. Analysis estimates that 21 000 tonnes of waste are treated in the hospitality and public sector institutions annually. There is little information available regarding the number of commercial food waste disposal units in use in Wales.

509. The costs of this option to businesses operating these units, for example in increased costs associated with the collection of food waste, are expected to be offset to some extent by the savings made in other areas, for example in savings associated with the maintenance and operation of the units. The costs are incorporated in the costs to businesses in table 29, below.

Sewerage Authorities

510. The sewerage authorities are not expected to incur any additional costs under this option.

Costs to the Welsh Government

511. The Welsh Government is expected to incur one-off costs through administrative activities such as communication and support activities for relevant impacted stakeholders.

512. The costs to Government are assumed to be the same for Options 2 and 3 and are estimated to be £58,000 in 2015 and £19,000 in 2016 and 2017.

Table 29: Costs to Welsh Government – Option 2

Description	Annual impacts during policy transition period		
	2015	2016	2017
Marketing budget	£21,100	£7,000	£7,000
PR element	£30,100	£10,000	£10,000
Seminars	£7,200	£2,400	£2,400
Total	£58,300	£19,400	£19,400

513. As outlined above, the modelling assumes that waste management businesses will benefit from a reduction in the amount of landfill tax that is paid each year. While this is a benefit to the waste management businesses it represents a cost (reduction in revenue) to the relevant tax collection authority. The Wales Act 2014 transfers power over the collection and management of Landfill Tax in Wales to Welsh Ministers from 2018.

Costs to Natural Resources Wales

514. To ensure the separate collection of waste by business waste producers it is assumed that NRW would inspect 1% of business premises per year. The total number of businesses in Wales is approximately 88,000.⁸⁴ NRW would confirm that food wastes were not being disposed of to public foul sewer at these visits. It is also assumed that the regulation of the requirement for the construction and demolition (C&D) waste stream would involve the inspection of material recovery facilities in this regard, in addition to the duties the NRW already regulate at these sites.

515. NRW will also need to publicise and organise other relevant communication activities around regulatory requirements resulting from the use of these powers.

516. The estimated cost to NRW for this proposal is approximately £75,000 per annum from 2018.

Costs to Local Authorities

517. There are not expected to be any significant additional costs or benefits to local authorities in terms of waste collection to householders from this option (though some costs or benefits may be passed to local authorities from waste management companies) as Welsh local authorities must already meet the separate collection requirements of the Waste (England and Wales) Regulations (as amended) and already provide a separate food waste collection service. Local authorities must also collect a high proportion of recyclable materials separately in order to meet the existing

⁸⁴ Data provided by Stats Wales, available from: <https://statswales.wales.gov.uk/Catalogue/Business-Economy-and-Labour-Market/Businesses/Business-Demography/ActiveBusinessEnterprises-by-Area-Year>

statutory recycling targets set under the provisions of the Waste (Wales) Measure 2010.

518. There should be no increase in costs with regard to local authority collection of business waste as this service is operated on a full cost recovery basis.

Option 2 Summary Table⁸⁵

519. Table 30 below, summarises the costs and benefits to the main sectors of the implementation of option 2, profiled from 2015 to 2024. The modelling assumes that costs are constant from 2018.
520. As noted above, landfill tax is a transfer payment which is paid by waste management businesses to HM Treasury. In other words, while there is a benefit (cost-saving) to business from avoided landfill tax, there is a corresponding cost (reduction in revenue) to HM Treasury. The net impact of any reduction in landfill tax payments on the UK economy is therefore zero. Avoided landfill tax is therefore excluded from the 'Net Cost' line of the table.
521. The table shows a cost-saving to Sewerage Authorities associated with the ban on the disposal of food waste to sewers and also environmental benefits, both of these are outlined in the benefits section below.
522. The overall impact of this option is a net benefit of between £1.45 million and £6.84 million per annum or £60 million over the ten-year appraisal period. The Net Present Value of this option is £50.6 million.

⁸⁵ *Eunomia Research & Consulting, (2014) Additional Policy Options Analysis for Welsh Government: Costs and Benefits of Extending Waste Framework Directive requirements, Waste Treatment Restrictions, Requirement to Sort and a Ban on the Disposal of Food Waste to Sewer - Aggregated Outputs for Welsh Government Environment Bill: Results Update 2015*

Table 30: Overview of costs per annum (£ 000) – Option 2

Cost Description	2015	2016	2017	2018	Years 2019 to (on-going costs)
Welsh Government					
Administrative	£58	£19	£19		
NRW					
Administrative					
On-going				£75	
Business Waste Producers¹					
Administrative	£2,045	£682	£682		
On-going					
Waste Management Business					
Administrative	£595	£198	£198		
Opex/Capex	£10,575	£14,100	£17,625	£17,625	
Materials revenue	-£4,894	-£6,526	-£8,157	-£8,157	
Avoided landfill tax ²	-£11,109	-£14,812	-£18,515	-£18,515	
Sewerage Authorities					
Avoided water treatment costs	-£530	-£707	-£884	-£884	
Monetised environmental costs	-£9,301	-£12,402	-£15,502	-£15,502	
Net Cost³	-£1,452	-£4,635	-£6,018	-£6,843	
Notes					
1. The policy may also result in reduced treatment costs for Welsh businesses depending on local circumstances and collection arrangements. It may result in additional costs where customers are unable to realise savings from reduced residual waste collection.					
2. Excluded from net cost calculations.					
3. A negative value indicates a net saving. Calculated excluding taxes and duty.					

Option 3: To supplement existing policies, provide the Welsh Ministers with powers to extend existing recycling requirements and prohibit the incineration or landfilling of certain waste materials (preferred option)

523. This option is predicted⁸⁶⁷¹ to achieve a higher rate of recycling than that of option 2 above. Greater recycling of material would take place than under Options 1 and 2 (above) and the extent of benefits realised in terms of the economy and the environment would be larger.
524. The modelling assumes, for each option, that the policy is fully enacted by 2017 after being announced in 2014, with there being in effect a lead-in time over the preceding years as businesses progressively change their behaviour in line with the policy up until this point.
525. The costs to the different sectors are presented below.

Costs to business waste producers

526. The cost incurred by business waste producers in this option is assumed to be the same as that under Option 2 (set out above)
527. As for option 2, the scale of ongoing costs (or savings) across the commercial sector depend in part on the following factors such as market competition and innovation to drive down costs to customers, business awareness of the services available and businesses response to increased costs of residual waste collection.
528. For these reasons, the potential for business waste producers to experience cost-savings is considered to be greater in this option as the waste collection service provided is predicted to be more comprehensive and competitive. While the increased cost savings to business waste producers have not been quantified, the potential for greater savings under this option is demonstrated by the costs savings to waste management businesses (see below), which are expected to be passed on to business waste producers as the market becomes increasingly comprehensive and competitive.

Waste Management Businesses

529. The waste management industry includes waste collection companies, operators of intermediate storage and treatment facilities such as waste transfer stations and end stage recovery and disposal facilities such as energy from waste facilities and landfill sites. Though the waste management industry is expected to experience an overall benefit from

⁸⁶ *Eunomia Research & Consulting, (2014) Additional Policy Options Analysis for Welsh Government: Costs and Benefits of Extending Waste Framework Directive requirements, Waste Treatment Restrictions, Requirement to Sort and a Ban on the Disposal of Food Waste to Sewer - Aggregated Outputs for Welsh Government Environment Bill: Results Update 2015*

this option it will be expected to experience some costs, financial and administrative. These are set out in table 31 and 32, below.

Financial Costs

530. The inclusion of a ban on the incineration or landfilling of specified materials in this option means that the capital and operating costs incurred by waste management businesses are expected to be higher than Option 2. The additional costs under this option are estimated to be between £11.3 million and £19 million per annum (relative to the baseline). Over the ten-year appraisal period, this totals £178.3 million.
531. However, the revenue received for recyclate materials (between £5.3 million to £8.8 million per annum) and the value of landfill tax avoided (between £12.9 million to £21.5 million per annum) are also expected to be greater under this option. The revenue from recyclate and landfill tax avoided total approximately £83 million and £202.3 million respectively over the ten-year appraisal period.
532. Taking these competing effects into account, the net benefit to waste management businesses is greater under this option than Option 2 at £106.9 million over the ten-year appraisal period. As with Option 2, it is expected that market forces will result in some of these net savings being passed to waste producers.

Table 31: Breakdown of Financial Costs to Waste Management Businesses

	Financial costs to waste management businesses, £ 000 (2014-2024) – Option 3
Annualised capex and opex	£178,337
Avoided landfill tax	- £202,276
Materials revenue	- £82,961
NET FINANCIAL COST⁸⁷	- £106,900

533. A breakdown of these costs (by year) for the policy options is presented in Table 34.

Administrative Costs

534. As with option 2, this option is expected to result in additional administrative costs being incurred by waste management businesses. Table 11 provides a breakdown of administrative costs that are applicable for Option 3.

⁸⁷ The Eunomia modelling assumed that businesses take a shorter term view than the Government when borrowing money and therefore used a discount rate that is higher than the standard HM Treasury discount rate when calculating annualised capital expenditure. As a result the modelling report shows an additional 'Other cost' of approximately £8.5 million in this option. This RIA uses the standard HM Treasury discount rate of 3.5% and so this cost is excluded.

535. The cost to waste management businesses for organising new collection systems and processes for waste producers is assumed to be the same as under Option 2. Waste management businesses will also be required to revise their existing leachate management and gas capture plans under this option. There is also expected to be a requirement on waste management businesses to supervise landfill inspections (considered to be an on-going requirement), and an on-going requirement for the inspection of waste transfer notes. For the latter, the cost increases during the transition period as businesses adapt their behaviour over time.

Table 32: Administrative costs to waste management businesses – Option 3

Description	Annual impacts during policy transition period			Annual impact – years 2018 to 2024 (on-going costs only)
	2015	2016	2017	
Organise new collection system for businesses	£595,300	£198,400	£198,400	
Supervise inspection of landfill site				£360
Visual inspection of waste and Waste Transfer Notes	£144,600	£192,800	£241,000	£241,000
Revise leachate management and gas capture plans	£17,900	£6,000	£6,000	

Waste Producers treating and disposing of food waste using Food Waste Disposal Units

536. The impact on this group of waste producers is assumed to be the same as under Option 2.

Manufacturers and suppliers of Food Waste Disposal Units

537. The impact on the manufacturers and suppliers of food waste disposal units is assumed to be the same as under Option 2.

Sewerage Authorities

538. Sewerage authorities are not expected to incur any additional costs under this option.

Costs to Local Authorities

539. There are not expected to be any significant additional costs or benefits to local authorities in terms of waste collection to householders from this option (though some costs or benefits may be passed to local authorities from waste management companies) as Welsh local authorities must already meet the separate collection requirements of the Waste (England and Wales) Regulations (as amended) and already provide a separate food waste collection service. Local authorities must also collect a high

proportion of recyclable materials separately in order to meet the existing statutory recycling targets set under the provisions of the Waste (Wales) Measure 2010.

540. There should be no increase in costs with regard to local authority collection of business waste as this service is operated on a full cost recovery basis.
541. Local authorities would not be expected to experience increases in residual waste disposal costs from a well operated source segregated waste collection service should not contain significant amounts of recyclable material and would be expected to meet the waste reception criteria at a landfill or EfW site.
542. Local authorities have the responsibility under the Environmental Permitting (England and Wales) Regulations 2010 (as amended) for regulating small waste incineration plants. The records of local authorities indicate that there are no such incinerators in Wales permitted to burn the materials that the Welsh Government proposes to ban from incineration. There is therefore no cost to local authorities of activity associated with EFW bans.

NRW

543. To ensure the separate collection of waste by business waste producers it has been assumed that NRW would inspect 1% of business premises per year. The total number of businesses in Wales is assumed to be 88,000).⁸⁸ NRW would confirm that food wastes were not being disposed of to public foul sewer at these visits. It is also assumed that the regulation of the requirement for the C&D waste stream would involve the inspection of material recovery facilities in this regard, in addition to the duties the NRW already regulate at these sites.
544. Landfill and EfW bans are likely to require variation of the facility's permits by NRW, which could entail limited one off costs. NRW may also need to review revised gas and leachate management plans from impacted landfill sites, should change of the waste inputs require it. As NRW already inspect the permits against strict waste reception criteria it is not expected that additional cost would arise through a need for extra inspections, though some training of inspection officers may be deemed necessary.
545. NRW will also need to publicise and organise other relevant communication activities around regulatory requirements resulting from the use of these powers.
546. The estimated costs to NRW are detailed below. The majority of this cost arises from the inspection of non-domestic premises with regard to the requirement to sort. This cost may decrease should the enforcement regime require a lower frequency of inspections.

⁸⁸ Data provided by Stats Wales, available from: <https://statswales.wales.gov.uk/Catalogue/Business-Economy-and-Labour-Market/Businesses/Business-Demography/ActiveBusinessEnterprises-by-Area-Year>

Table 33: Costs to NRW – Option 3

Description	Annual impacts during policy transition period			Annual impact – years 2018 to 2024 (on-going costs only)
	2015	2016	2017	
Inspection of premises				£37,000
Inspection of premises (C&D businesses)				£38,400
Inspection of landfill sites				£300
Vary waste management licences for landfills			£5,500	
Review revised landfill management plans			£29,900	
Vary waste management licences for EfW facilities			£1,100	

Welsh Government

547. The cost to Welsh Government under this option is assumed to be the same as for Option 2.

Option 3 Summary Table

548. Table 34, below, summarises the costs and benefits to the main sectors of the implementation of option 3, profiled from 2015 to 2024. As with Option 2, avoided Landfill Tax is a transfer payment and is therefore excluded from the 'Net Cost' calculation.

Table 34: Overview of costs per annum (£ 000) – Option 3^{89 71}

Cost Description	2015	2016	2017	2018	2019 to 2024 (o costs onl
Welsh Government					
Administrative	£58	£19	£19		
NRW					
Administrative			£36.5		
On-going				£75	
Business Waste Producers¹					
Administrative	£2,045	£682	£682		
Waste Management Business					
Administrative	£758	£397	£445		
On-going				£242	
Annualised opex / capex	£11,383	£15,178	£18,972	£18,972	
Materials revenue	-£5,295	-£7,061	-£8,826	-£8,826	
Avoided landfill tax ²	-£12,911	-£17,215	-£21,519	-£21,519	
Sewerage Authorities					
Avoided water treatment costs	-£530	-£707	-£884	-£884	
Monetised environmental costs	-£10,464	-£13,952	-£17,440	-£17,440	
Net Cost³	-£2,028	-£5,438	-£7,025	-£7, 861	
Notes					
1.	The policy may also result in reduced treatment costs for Welsh businesses depending on local circumstances and collection arrangements. It may result in additional costs where customers are unable to realise savings from reduced residual waste collection.				
2.	Excluded from net cost calculations.				
3.	A negative value indicates a net saving. Calculated excluding taxes and duty.				

⁸⁹ Eunomia Research & Consulting, (2014) *Additional Policy Options Analysis for Welsh Government: Costs and Benefits of Extending Waste Framework Directive requirements, Waste Treatment Restrictions, Requirement to Sort and a Ban on the Disposal of Food Waste to Sewer - Aggregated Outputs for Welsh Government Environment Bill: Results Update 2015*

549. The additional environmental benefits (see below) and revenue from the sale of recyclate materials mean that the net benefits from this option is greater than that from Option 2. The net impact of this option is estimated to be £69.5 million over the ten-year appraisal period. The Net Present Value of this option is £58.7 million.

Part 4: Benefits

Option 1: Do Nothing: Rely on existing mechanisms

550. This option has no additional benefits other than it would neither require legislative action nor the cost of implementing new legislation. Such action would contradict the conclusions and recommendations of research of research carried out by the Welsh Government and the aspirations of the Welsh Government as set out in Towards Zero Waste, the waste strategy for Wales.

Option 2: Provide the Welsh Ministers with powers to extend existing recycling requirements

551. This option covers part of the chain of waste management – the producer and the collector.
552. The modelling⁹⁰ carried out for this option has estimated that introduction of the option would result, over a ten year period, in a financial benefit to Wales over the base line (option 1) of £60 million, an additional 2.3 million tonnes of recycled materials and a CO₂ equivalent abatement of 1.9 million tonnes.
553. The benefits of this option are summarised below.

Business Waste Producers

554. The scale of costs (or savings) across the commercial sector depend in part on the following factors such as market competition and innovation to drive down costs to customers, business awareness of the businesses to the services available and businesses response to increased costs of residual waste collection. For this reason these costs were not modelled separately in the high level modelling work, but have been included in the costs/savings to waste management businesses. Separate work on the cost to business of the proposals was carried out and is outlined above. This work anticipated benefits to many businesses, particularly those producing larger amounts of waste, those that don't currently use any recycling services and those in the construction and demolition sector.

⁹⁰ *Eunomia Research & Consulting, (2014) Additional Policy Options Analysis for Welsh Government: Costs and Benefits of Extending Waste Framework Directive requirements, Waste Treatment Restrictions, Requirement to Sort and a Ban on the Disposal of Food Waste to Sewer - Aggregated Outputs for Welsh Government Environment Bill: Results Update 2015*

555. However, it would be expected that the potential benefits to businesses under Option 2 would be lower than under Option 3, as the provision of a high quality separate collection system will not be reinforced by downstream landfill and EfW bans for specified materials.

Waste Management Businesses

556. Waste collection businesses are expected to benefit overall from the proposals, in the main due to cost savings from avoided landfill tax, residual treatment and revenue from recycle. These savings are sufficient to offset the increased waste collection costs. The modelling estimated net benefits to waste businesses of £85 million over a ten year period set against transitional costs of £1million over the first three years of that period (detailed in costs section, table 34 above). In a competitive market it would be expected that some of these cost savings would be passed to the waste producer, lowering the benefit to the waste management business.

Sewerage Authorities

557. The modelling suggests that Sewerage authorities will accrue benefits under this option, in areas including:

- Savings with regard to blockage and damage to sewerage systems
- avoidance of costs of treating effluent from macerators

558. The benefits are shown in table 34 above/below and are estimated to be between £530,000 and £884,000 per annum.

Environmental Benefits

559. The monetised environmental benefits for this option of £146million over a ten year period are calculated based on the monetisation of emissions to air, including climate change and air pollution impacts, the latter being considered through a monetisation of the impact on human health.

560. The modelling⁹¹ estimates an additional 2.3 million tonnes of recycled materials over a ten year period and a CO₂ equivalent reduction of 1.9 million tonnes over a ten year period. This generates benefits of between £9.3 million and £15.5 million per annum.

⁹¹ Eunomia Research & Consulting, (2014) *Additional Policy Options Analysis for Welsh Government: Costs and Benefits of Extending Waste Framework Directive requirements, Waste Treatment Restrictions, Requirement to Sort and a Ban on the Disposal of Food Waste to Sewer - Aggregated Outputs for Welsh Government Environment Bill: Results Update 2015*

Option 3: To supplement existing policies, provide the Welsh Ministers with powers to extend existing recycling requirements and prohibit the incineration or landfilling of certain waste materials (preferred option)

561. The modelling carried out estimates that this option provides the highest level of financial savings, the highest levels of recycling and the greatest reduction in the production of CO₂ of the three options. It makes the greatest contribution towards increased employment and resource security. The modelling⁷¹ has estimated that introduction of the option would result, over a ten year period, in a financial benefit to Wales over the base line (option 1) of £69 million, an additional 2.5 million tonnes of recycled materials and a CO₂ equivalent abatement of 2.1 million tonnes.
562. The option extends the chain of responsibility for increasing the recycling and recovery of waste materials across the chain of waste management, from the waste producer through to point of disposal . It is considered that a combination of legislative interventions would be the best way to achieve the desired outcomes since no one intervention on its own is likely to achieve the overall desired outcome.
563. The option reflects European best practice. A variety of approaches are used across Europe to encourage high recycling rates, and often there is a combination of legislative interventions in place. For example, Germany and Flanders require businesses to sort their recyclables for collection and/or require the recyclables to be collected separately and impose restrictions on the incineration and landfilling of separately collected waste and unsorted wastes.
564. The addition of landfill and EfW bans for specified materials is intended to reinforce the upstream requirements to require waste producers to present their waste separately for collection, for waste collectors to collect additional materials by means of separate collection and a ban on the disposal of food waste to sewer from non-domestic premises.
565. This option supports key Welsh Government and European Union drivers, including:
- Towards Zero Waste (the waste strategy for Wales)
 - The Environment and Climate Change Strategies for Wales
 - The principles of the European Framework Directive and European Union 7th Environment Action Programme
566. The key benefits and modelling for this option are detailed below.

Increased Employment

567. High levels of recycling are predicted to result to increase employment in Wales. It is estimated that in Wales there are around 7,850 people employed in the waste management industry⁹². Research⁹³ shows that

⁹²Sector Skills Assessment 2010 – Wales, Energy & Utility Skills.

implementing a 70% recycling rate for all wastes by 2025 would potentially create new jobs in Wales in the order of:

- 3,600 new jobs across municipal, commercial and industrial (including construction and demolition) sectors.
- 2,600 new jobs in the municipal sector alone.

568. While increasing employment generates additional economic costs (as reflected in the modelling) there are potential social benefits associated with increasing employment levels in society.

569. Many of the jobs created come from:

- The economic activity of the reuse, preparation for reuse and recycling industries.
- 'Indirect' employment (through other economic activity supporting the industry, for example from the industries' purchases of goods and services).
- 'Induced' employment (through industry employees spending their wages in the economy).

570. Data from the European Commission shows that the waste management sector for the EU-25 amounts to 1.2 to 1.5 million jobs. Recycling 100,000 tonnes of waste can create up to 250 jobs as opposed to 20-40 in the case of incineration and approximately 10 landfilling⁹⁴.

Environmental Benefit

571. A ban on the incineration and landfilling of certain materials means that the environmental benefits under this option are greater than those in Option 2. The monetised environmental benefits for this option of £164 million over a ten year period are calculated based on the monetisation of emissions to air, including climate change and air pollution impacts, the latter being considered through a monetisation of the impact on human health.

572. The modelling estimates an additional 2.5 million tonnes of recycled materials over a ten year period and a CO₂ equivalent reduction of 2.1 million tonnes over a ten year period.

573. Additional research carried out for the Welsh Government has shown that large reductions in greenhouse gas emissions can be achieved against the current baseline by diverting priority materials from landfill to recycling^{95, 96}. To give one example the carbon saving from improving the

⁹³ *More Jobs Less Waste' Friends of the Earth Report September 2010*

⁹⁴ *Data highlighted by the European Commission, under the framework of the EU Recycling Thematic Strategy (2005) - taken from 'Municipal Waste in Europe ACR+ Association of Cities and Regions for Recycling and Sustainable Resource management*

⁹⁵ *Environmental Life Cycle Assessment of Waste Management Options for Priority Waste Materials, Environment Agency Wales (2009)*

⁹⁶ *Future Recycling and Landfill Diversion Targets for Wales, Eunomia (2009)*

management of plastic from I&C waste from the baseline situation in 2007/8 to a high level of material recovery (largely by diverting landfilled waste to recycling) is 110 000 tonnes of CO₂ equivalent.

Business Waste Producers

574. Many producers of business waste, in particular those producing larger amounts of waste, those not using a recycling service currently and those within the construction and demolition sector, would be likely to experience savings in waste collection costs under this option. A summary of the expected costs and benefits to business waste producers is provided in table 34, above (for the purposes of Table 34, the negative value represents a net saving).

Waste Management Businesses

575. Waste collection businesses are expected to benefit overall from the proposals, in the main due to cost savings from avoided landfill tax, residual treatment and revenue from recycle. The savings are sufficient to offset the increased cost associated with the recycling collection. The modelling estimated benefits to waste businesses of £106.9 million over a ten year period set against transitional and administrative costs of £3.2 million over the same period (detailed in costs section, table 14 above). In a competitive market it would be expected that some of these cost savings would be passed to the waste producer, lowering the benefit to the waste management business.

Sewerage Authorities

576. The benefit to sewerage authorities is assumed to be the same as that under Option 2.

Cost Reduction within Waste Management Systems

577. Modelling work commissioned by WRAP⁹⁷ predicts that increased recycling associated with investments in collection and treatment infrastructure will lead to a reduction in overall costs compared with continuing with current systems. Cost savings are made through implementing the recycling targets. Under the scenario where the 70% recycling targets in 'Towards Zero Waste' are met, over £50m per annum of savings are made within the standard commercial and industrial waste services by 2025 compared to the costs in 2010, increasing to over £60m per annum by 2050.

578. In a study of landfilled mixed commercial and industrial waste commissioned by the Environment Agency Wales, it was estimated that Welsh businesses threw away waste worth £30 million pounds in 2005 - around half a million tonnes of potentially recyclable material went to

⁹⁷ *Economic Assessment of the Welsh Government's Collections, Infrastructure and Markets Sector Plan. WRAP (2011).*

landfill. If this mixed waste had been separated at source, up to 77 per cent could have been reused, recycled or composted.⁹⁸

579. The scale of costs (or savings) across the commercial sector depend in part on the following factors such as market competition and innovation to drive down costs to customers, business awareness of the businesses to the services available and businesses response to increased costs of residual waste collection.

Improved Resource Security

580. Improved resource efficiency addresses the growing concern over security of resources caused by the increasing global demand for resources. By using resources more efficiently through waste prevention and high reuse and recycling rates, material security is improved and dependence on primary resources (whether from inside or outside the UK) is reduced. Measured purely by mass of material, the EU's economy's resource efficiency has improved at a rate of between 1 and 2% a year (below the rate of economic growth). The World Business Council on Sustainable Development points to the need for an increase in resource efficiency of factor 4 to 10 by 2050 (which implies that each unit of production is produced using respectively 25% and 10% of its current resource inputs)⁹⁹.

Part 4: Summary and Preferred Option

581. Option 1 does not address critical issues surrounding the need to improve resource efficiency and carries considerable risk to the sustainability of our businesses and natural resources.
582. Option 2 provides for an improvement in recycling but does not give the levels of recycling and associated benefits in terms of the environment and the economy provided by Option 3. It is expected that the potential benefits to businesses under Option 2 would be lower than under Option 3, as the provision of a high quality separate collection system will not be reinforced by downstream landfill and EfW bans for specified materials.
583. Option 3 provides the highest level of financial savings to waste management businesses, the highest levels of recycling and the greatest reduction in the production of CO₂ of the three options. It makes the greatest contribution towards increased employment and resource security and is predicted to provide waste producers with the highest quality of collection system.
584. Options 2 and 3 are both likely to result in additional waste management costs being incurred by some businesses in Wales. The research undertaken for Welsh Government suggests that the impact of the proposals on waste management costs is likely to be greatest (in

⁹⁸ *Determination of the Biodegradability of Mixed Commercial and Industrial waste Landfilled in Wales 2007, SLR (2007)*

⁹⁹ *Vision 2050, World Business Council on Sustainable Development (2010)*

percentage terms) on those businesses producing small amounts of waste. While there may be some impact on competitiveness, the scale of the additional costs identified in the research means they are only likely to have a significant impact on the more marginal businesses.

585. There are steps the Welsh Government is planning to take to help mitigate the potential negative impacts on Welsh businesses. Furthermore, it is expected that competition within the industry will result in waste management businesses passing at least some of their anticipated net cost-savings on to their customers.

586. Option 3 is the preferred option on the basis of the greater potential for environmental benefits and financial savings from the treatment of waste.

Part 5: Fisheries for Shellfish

Options Analysis

Option 1 - (do nothing)

- 587. The current systems are not providing the service that Welsh shellfishery fishers need, thus leading to loss in opportunities for local employment and environmental improvements. Under this option the current powers under the Sea Fisheries (Shellfish) Act 1967 would remain in place and the status quo would be maintained.
- 588. As this option is our baseline against which we assess our other option we do not estimate any additional costs or benefits from this option.
- 589. However, It is anticipated that under this option there could be only limited growth in the industry
- 590. In this scenario the Welsh Ministers would be unable to address the problem of granting longer tenures for inshore fisheries while meeting their EU obligations

Option 2 - Amend the Sea Fisheries (Shellfish) Act 1967 (“the 1967 Act”)

- 591. Amendments to the 1967 Act would involve primary legislation and could deal with issues currently surrounding the granting of an order. Under this option the Welsh Ministers would have the power to issue Site Protection Notices, and subsequently to amend or revoke Several and Regulatory Orders (if necessary).
- 592. Making amendments to the 1967 Act, rather than setting out new provision on the face of the Environment Bill, has the added benefit of clarity for the Minister and the user (with all of the relevant provisions appearing on the face of one Act – the 1967 Act).
- 593. It would permit the more sensible wider review of and adjustment to the relevant provisions of the 1967 Act. This would allow us to adjust the application procedure, deal with the need to make adjustments to enforceable and agreed fisheries management practices (sometimes at short notice) and enable the Welsh Ministers to make unilateral amendments to and revocations of such Orders (in specified circumstances).
- 594. These amendments will need Primary Legislation and the proposed Environment Bill is an appropriate vehicle for making those changes.

Part 5: Costs

Option 1 – Do nothing

Approximation of timings and cost of a standard application with minor or no issues, depending on type of site

Public Sector

595. The timings set out below are a best estimate of the “total hours” spent on such an application as a whole and do not reflect the amount of real time taken waiting for responses, both externally and internally, during the application process. They also include the time periods spent on the pre-application discussion between the applicant and the Natural Resources Body for Wales (“NRW”). Applications with many issues could take substantially longer to process and, in some cases, it has been necessary for application documents to be re-submitted. The level of scrutiny required when processing an application varies according to the proximity of the proposed site to protected areas.
596. The following 3 scenarios set out the three main types of marine location where applications are likely to be made in Welsh waters (i.e. outside a conservation area, adjacent to one, or within a conservation area). Exact estimates of time taken to process an application are difficult to calculate, but for the purposes of this RIA, a standard, less complex case has been estimated to take between 6 to 18 months to complete.
597. Scenario 1) Applications for shellfishery areas that are not within or immediately adjacent to a Special Area of Conservation (“SAC”), Site of Special Scientific Interest (“SSSI”) etc.
598. Approximately 1086 hours are spent by the Welsh Government, NRW and Cefas staff in processing the application at a cost of approximately £33,200. An Environmental Statement is required wherever a fishery is proposed, and a thorough scientific investigation of the area is always required. Welsh Government will use Cefas amongst other environment consultancy firms.
599. The total hours of those involved in processing an application were worked out and then costed using known hourly rates. This was approx. because exact pay details for individuals was not available.
600. Cefas and NRW costs are constant throughout the different options, with the difference in costs being due to differing amount of hours attributed to Welsh Government staff.
- Welsh Government - £5,300
 - NRW - £10,400
 - Cefas - £17,500

601. Scenario 2) Applications for a shellfishery that is adjacent to or nearby an SAC, SSSI etc.
602. In addition to the costs set out above, the Applicant would have the additional cost of preparing an Environmental statement.
603. Approximately 1143 hours are spent by Welsh Government, NRW and Cefas staff in processing the application at a cost of around £33,800.
604. Scenario 3 - Applications for a shellfishery that is within an SAC, SSSI etc.
605. As above, the Applicant would have additional cost of preparation of an in depth Environmental statement.
606. Approximately 1452 hours are spent by Welsh Government, NRW and Cefas staff in processing the application at a cost of around £37,400.

Table 35 below provides a breakdown of the costs between Welsh Government, NRW and Cefas under each scenario.

	Scenario 1	Scenario 2	Scenario 3
Welsh Government	£5,300	£5,900	£9,500
NRW	£10,400	£10,400	£10,400
Cefas	£17,500	£17,500	£17,500
Total	£33,200	£33,800	£37,400

607. In recent years, the Welsh Government has received 2-3 applications for an Order each year. On this basis, the aggregate annual cost to Welsh Government, NRW and Cefas of processing applications is between £66,400 and £112,200.

Industry

608. Costs to the applicant vary greatly depending on details of the proposed fishery, including species to be cultivated, size of the proposed fishery, its duration and location (for example, proximity to protected areas). The costs incurred by the applicant will include a site survey and fieldwork, production of the application and a management plan, and advertising of the draft proposal. Information provided by a recent applicant suggests that the cost of applying for an Order ranges from £12,000 to £27,000. On the basis of there being 2 to 3 applications made each year, this equates to a cost to industry of £24,000 to £81,000 per annum. If a Public Inquiry is necessary (in accordance with Schedule 1 to the 1967 Act) as part of the application process, the costs to the Applicant could be significantly higher. Due to the variation of the cases and the level of complexity involved in assessing the criteria on a case by case basis, it is difficult to calculate an exact figure. A best estimate has been calculated as approximately £50,000.

609. The level of environmental certainty required by the Welsh Ministers in order to comply with the Habitats Directive before the Order can be made, has resulted in a complex, lengthy and expensive application process, which frequently results in granting Orders for shorter periods of time than is economically viable for fishermen to invest in setting up these type of shellfisheries.

Option 2 – Substantive Amendments - preferred option

Public Sector

610. There are not expected to be any transitional costs incurred as a result of this Option. The fisheries industry will be informed of the changes through the established networks with organisations such as the Welsh Fishermen's Association, but also through groups like the 3 Inshore Fishery Groups, the Wales Marine Fisheries Advisory Group. The proposed changes to the 1967 Act will be relatively straight forward for the industry and will not require workshops and staff training outside of what normally occurs through work. No additional communication costs are envisaged.
611. The cost to the Welsh Government, NRW and Cefas of processing an individual application is not expected to change from the baseline. The new powers will not lead to a drop in the level of scrutiny required regarding the possibility of environmental damage caused by the fishery, or as a result of its operation. The new powers allow greater flexibility for intervention if damage, or potential damage, to the EMS is detected after the Order has been granted. They do not decrease the amount of consideration to this issue that needs to be undertaken before granting the proposed fishery.
612. The expectation is, however, that the change in legislation will enable the Welsh Ministers to grant Orders for longer periods of time, making them more attractive to the industry. As such it is hoped that there will be an increase in the number of applications made to Welsh Government. At this stage, it is difficult to forecast how many additional applications will be received in each year with any certainty. Based on the costs presented under Option 1, the cost to the public sector of dealing with each additional application is estimated to be between £33,200 and £37,400 (depending upon the proposed shellfisheries location).
613. The number of Site Protection Notices issued is expected to be very low, as is the likelihood of using the new power of the Welsh Ministers to revoke or amend an existing Several or Regulating Order. The checks undertaken in scrutinising an application and the conditions applied to an Order are intended to ensure that any such shellfishery will not be damaging to any protected European Marine Site and, consequently, in most cases there should be no need to issue a Site Protection Notice or make an amendment to or revocation of an existing Several or Regulating

Order. In the longer-term, as environmental conditions change, the likelihood of Site Protection Notices being needed increases (as the marine environment changes over time). The cost of preparing and serving a Site Protection Notice to the Welsh Government is estimated to be a one-off cost of approximately £550. This includes the administrative costs and the input from Legal Services.

Industry

614. The proposed changes are not expected to result in a change in the cost to a business of applying for an Order. The cost to industry of each additional application is therefore estimated to be between £12,000 and £27,000. Clearly, in deciding whether to incur this cost, the applicant will need to be confident that the returns from the Order (if granted) will exceed this cost.
615. There will be a cost to the grantee of a fishery order if a Site Protection Notice is served on them. As noted above, the number of Site Protection Notices that are issued is expected to be very low, particularly during the early years of an Order. Due to the range of conditions that may be imposed on a fishery and the differing scale of shellfisheries in Wales, it is not possible at this stage to estimate the impact of a Site Protection Notice on an individual business (it will depend entirely upon the nature of that particular fishery and the manner in which it is or could be generating harm to a European Marine Site).

Part 5: Benefits

Option 1 – Do nothing

616. There are no additional benefits associated with this option. This option is not desirable from the perspective of both the applicants and the Welsh Government. As noted above, the inflexibility of the 1967 Act regime does not give the fishermen the flexibility they need in operating this type of fishery. In addition the level of environmental certainty required by the Welsh Ministers in order to comply with the Habitats Directive, has resulted in a complex, lengthy and expensive application process, which frequently results in granting Orders for shorter periods of time than is economically viable for fishermen to invest in setting up these type of shellfisheries.
617. The present economic size of the shell fishing industry in Wales is approximately £11 million per annum. However, there is a risk that the size of the industry in Wales will contract, as renewals of Several and Regulating Orders will appear less attractive (under existing legislative provision).

Option 2 – Substantive amendments -preferred option

618. Changes to the regime established by the Sea Fisheries (Shellfish) Act 1967 would enable the Welsh Ministers to comply with their environmental obligations whilst improving the flexibility that is needed by the industry. This will make such Orders more attractive and thereby increase economic opportunities for shellfishery businesses in Wales and, consequently, increase local employment and benefit our economy. The Welsh Government is committed to a doubling of shellfish aquaculture by 2020, which could generate an additional £5 to 6 million per year. It could also allow such Orders to be granted for longer periods of time which will make them more lucrative and attractive as business investments. It has not been possible to determine how many additional applications will be submitted as a result of the changes nor the impact in terms of the potential increase in the size of the industry.
619. Several and Regulating Orders also provide opportunities for management measures that are of benefit to the conservation of biodiversity as well as the fishery concerned, e.g. by regulating bait digging activity which would be equally detrimental to the specified shellfish as to wildlife and habitats.
620. Although there is unlikely to be any significant reduction in terms of the time and cost spent on standard applications under the new regime, the real benefit is likely to be the ability for the Welsh Ministers to interrupt, alter or terminate fishing practices altogether where those practices are (or could become) damaging to any protected or vulnerable habitats or species. The creation of a power to issue a Site Protection Notice will give the Welsh Ministers the power to immediately adjust/cease fishing operations using a notice procedure; this will then allow time to undertake the longer term process of making the necessary amendment/revocation to the relevant shellfishery Order (which will require the making of a further Statutory Instrument).
621. The ability to provide longer tenures to prospective investors, and for existing investors who are looking to renew fishery orders, should enable the Industry in Wales to be more stable, and in a better position to grow from.
622. Having the ability to grant an Order for a longer period of time will give investors the longer term security that is required for these types of fisheries.

Table 36: Summary table of key costs and benefits for preferred option

The current application process for Several and Regulating Orders is already well established.

There will be no new costs or burdens placed upon Welsh Government or stakeholders in addition to those that they already face.

The administrative costs associated with the drafting and implementation of the Environment Bill will be met by the Welsh Government.

Key Costs	Key Benefits
<p>Monetised Proposals are cost neutral – No costs.</p>	<p>Monetised No monetised benefits.</p>
<p>Non-monetised Proposals are cost neutral – No costs.</p>	<p>Non-monetised</p> <ul style="list-style-type: none"> • The Welsh Ministers (WM) will have the ability to intercede if a fishery is found to be damaging a European Marine Site. • Thereby reducing the risk to WMs on incurring infraction costs from such an incident. • WM’s confidence to award longer tenures for fisheries will be stronger. • Investment in the industry will have greater confidence due to longer tenures being granted leading to growth in the sector and increased economic value.

Part 6: Marine Licensing

623. The three options considered are (1) Do nothing / no change, (2) Administrative change and (3) Legislative change.
624. The analysis and data used in the options appraisal is based on a ten year forecast, where appropriate, from April 2014 – March 2023. The figures are based on Natural Resources Wales (NRW) data and proxy data from other licensing authorities in the UK and, where data is limited, best estimates provided by NRW.

Option 1 – Do nothing- Maintain the baseline position.

625. Maintaining the gaps in fee charging powers means the licensing authority (NRW) continues to effectively subsidise the costs of the marine licensing regime.

Option 2 – Administrative change

626. There is scope to further use existing marine licence fee recovery powers along with wider NRW powers to enable NRW to recover more of its costs. The option involves NRW utilising all existing charging mechanisms currently available in full, updating current fees and not seeking any new powers. In summary:
- Charge for all services provided under the Marine Works (Environmental Impact Assessment) Regulations 2007 (as amended) – Screening, Scoping, Monitoring;
 - Review and update all fees;
 - Enter into formal voluntary agreements with applicants/ developers to recoup costs under general NRW power to enter into arrangements.

Option 3 – Legislative change (preferred option)

627. Amend the existing powers via the Environment Bill to include the power for the licensing authority (NRW) to charge for:
1. Pre-application work
 2. Varying a licence
 3. Transferring, Suspending or Revoking a licence
 4. Monitoring of a marine licence, to include assessment of monitoring reports, discharge of conditions and compliance testing.
628. This option would also include utilising existing charging powers, set out under Option 2, and updating current fees following a fees review.

Part 6: Costs

Option 1 – do nothing (baseline)

Pre-application work

629. Currently, NRW do not routinely offer a full pre-application service.
630. Under this option, there would continue to be no charge for the pre-application service that is provided, meaning the service would remain limited and 'light touch'. The level of pre-application engagement that NRW would provide could be expected to vary.
631. Screening and Scoping of whether a project requires Environmental Impact Assessment (EIA), and if so, the scope of the assessment under the Marine Works (Environmental Impact Assessment) Regulations 2007 (as amended) (MWR) is a statutory requirement and is carried out by NRW. There are existing powers under the MWR to charge for the provision of Screening and Scoping opinions. However, currently these services are provided free of charge, thus resulting in a cost to NRW, as the licensing authority.
632. Informally NRW do seek to recover some costs associated with pre-application, and under this option that would continue – for example, where scientific advice is required. Such costs are recovered through voluntary arrangements with applicants seeking pre-application advice. Where this is the case, scientific advice is provided direct to the applicant, without any additional views or advice provided by the licensing authority.
633. Under this option, developers, who increasingly expect a high level of engagement and standard of service, would likely find that NRW are unable to engage adequately at early stages of their projects and that, consequently, the anticipated benefits of pre-application to both parties of engagement of the pre-application stage would not be realised.
634. This option would also be expected to result in higher costs and delays at application stage because it may be too late in the process to resolve issues that could have been resolved more easily at the early, informal and developmental stages of the project.
635. Overall, the cost to an applicant could therefore be higher under this scenario. The estimated cost to NRW for the handling of pre-application charges is as follows:

Screening and Scoping Requests:

636. Approximately 16 hours per request of which an average of 8 requests are received per annum. For these requests, the estimated staff costs per annum are £7040 and the average cost of advice per annum of advice received from Cefas is £1806. So, total cost to NRW is £8846 per annum. As noted above, there are powers to charge for these specific services already but to date, they have not been used in Wales.

Estimated costs for Draft Environmental Statement (ES) review

637. It is estimated that approximately 20 hours of officer time is required per ES review, equating to £1,100 per ES, but this can vary greatly depending on size of development and level of service requested by the applicant. It is not possible to provide costs per annum as this service has not been provided historically and is not currently a service actively promoted by NRW, albeit it has been provided informally. As only one request to review an ES was received in 2013-14 it is reasonable to assume one request per annum going forward, in relation to this option, on the basis that the service is not actively offered by NRW.

638. It is anticipated that if Cefas advice is required, it will be in the region of £8036.37. This data is based on a single case, so it is recognised that figures could vary on a case by case basis. With the agreement of the applicant, this cost is currently recouped under option 1.

Other pre-application costs

639. Handling of basic queries, on average 2 hours per query, approximately 260 queries per year is currently being done at a cost to NRW of £28,600 per annum.

640. Total estimated annual cost to NRW of pre-application work, at current levels is:

- Draft ES review – £1,100 (Cefas costs being recouped through informal arrangement)
- Queries - £28,600
- Screening and scoping - £8,846

641. Total annual costs to NRW of retaining option 1 – no change to charging mechanisms, is: £38,546.00. Therefore, total cost to NRW over ten years is estimated to be £385,460.00. Direct cost to industry currently is in the region of £8,036.37 (this is based on one example – which is the direct cost of Cefas providing scientific advice), (see para 636 above), if an ES review is undertaken. Over ten years, this equates to £80,363.70.

Varying a licence

641. As NRW cannot currently charge for varying a licence, they require applicants to submit a new application for cases which require changes to

a licence that are not purely administrative. In such cases, developers therefore pay the full application fee associated with the works.

642. Under this option, the cost would be higher than that resulting from a power to charge specifically for varying a licence.
643. The estimated cost to NRW of varying a licence is set out in the following paragraphs.
645. For Minor/administrative variations, based on available data, there have been 33 instances per annum requiring an average of five hours of staff time each, at a current cost of £9,075 to NRW.
646. Changes that are not substantial but which require re-assessment and which require advice from Cefas, which is currently recouped, it is expected there would be one per annum requiring 10 hours of staff time, at a current cost of £550 to NRW, and a Cefas cost of £710, currently recovered from the applicant.
647. Substantial/material changes that require new assessment: on average two per annum charged in line with the standard application fee. In these instances, there is no variation cost to NRW as the reassessment would be covered by the new application fee.

Total estimated annual costs to NRW for variation work:

Administrative variations - £9075

Non substantial variations - £550

Total £9,625

Total cost to NRW over 10 years £96,250

Costs to industry of £710 per annum.

Costs to industry over ten year of £7,100.

Transferring, suspending and revoking a licence

649. NRW may incur costs and cannot presently recover them when a licence holder wishes to transfer a licence. Although this has not been done to date, processing requests are estimated to take two – three hours per request (£110 - £165). Based upon past experience and experience elsewhere in the UK, this scenario is unlikely to occur so, for the purposes of this RIA, we forecast two transfers over ten years at a cost to NRW of £220-330 over the ten year period.

650. NRW may incur costs and cannot presently recover them when a licence holder wishes to suspend or revoke a licence. Processing requests are estimated to take two – three hours per request (£110 - £165). Based upon past experience and experience elsewhere in the UK, this scenario is unlikely to occur so, for the purposes of this RIA, we forecast two revocations over ten years at a cost to NRW of £220-330 over the ten-year period.

Monitoring of a marine licence, to include monitoring reports, discharge of conditions and compliance testing

651. The MWR do not provide powers to recover costs in relation to the discharge of conditions in the widest sense. However, there are some recovery powers in relation to monitoring conditions specifically.

652. The costs of discharging conditions on licences is therefore carried out by NRW at a cost to them.

653. Approximately 29 conditions are discharged per annum, which take an average of 3.7 hours to process. This equates to a staff cost to NRW of £5902 per annum. In addition to staff costs, there is an average annual cost of Cefas advice of £11448.

654. Total estimated cost to NRW per annum to discharge conditions £17,350

656. Total estimated cost to NRW to discharge conditions over ten years
£173,500

Monitoring conditions

657. In cases where the MWR do apply, i.e., an EIA related marine licence. NRW is currently able to recover the costs of monitoring. This would continue under this option.

658. The cost associated with this type of monitoring includes the work of NRW and advisors such as Cefas in reviewing the information provided by the licence holder.

659. The cost associated with monitoring licences may also include external advice costs for NRW. As above, these would be recouped in cases where the MWR do apply, and also where they do not apply, informal arrangements with licence holders are sought to recoup those costs.

660. Current costs incurred by NRW are set out below:

661. For EIA projects an average of 13 per annum require post consent monitoring work, taking on average four hours of officer time (total cost of £2,860) of which seven included a requirement for advice from Cefas at a cost per annum of £19,934.

662. Monitoring fees of £20,695 were recouped from the applicants under an annual monitoring fee charge.
663. Estimated total cost incurred by NRW per annum is £2,099.
664. Estimated total cost incurred by NRW per ten years is £20,990
665. For non EIA projects, an average of two projects per annum require post consent monitoring, taking on average four hours of officer time (total cost of £440) of which one included a requirement for Cefas advice at a cost of £5,684. No monitoring fee recouped, as powers not available.
- Estimated total cost incurred by NRW per annum £6,124.
 - Estimated total cost incurred by NRW per ten years is £61,240

Monitoring of disposal sites and disposal returns

667. There is currently no routine monitoring of disposal sites undertaken in Wales. As such there are no direct costs to NRW. If there is a need to monitor a disposal site, an individual licence holder may be expected to bear the cost. Currently Cefas undertake monitoring of disposal sites for English waters, at the request of the Marine Management Organisation (MMO).
668. NRW has no figures with regards to the cost of monitoring disposal sites in Wales. For the 2014/2015 monitoring regime the MMO will be billed £250,000 for the monitoring of six sites in English Waters, which are chosen on a risk basis. This monitoring cost can vary greatly depending on the targeted sites. It is anticipated that fewer sites would be monitored in Welsh Waters, due to the comparably lower number of designated disposal sites in Welsh territorial waters. There are 14 designated disposal sites in Welsh territorial waters.
669. In line with the OSPAR convention, NRW monitor the quantity of material disposed of at sea to designated disposal sites. This is undertaken through the submission of disposal returns from licence holders.
670. Costs per annum to NRW of handling disposal returns are estimated at 25 hours staff time per annum equating to £1,375. Cefas handling costs are estimated at £548 per annum.
- Estimated total costs to NRW per annum £1,923
 - Estimated total costs to NRW per ten year period £19,230

Conclusion and assumptions

671. Under the no change option, it is forecasted that NRW would continue to effectively subsidise the administration of key aspects of the marine licensing regime.
672. See Table 37 below for summary of costs detailed above. Overall, under Option 1, estimated costs for NRW per annum is £75,733 for the areas

covered by the Bill powers. This figure does not reflect the cost of administering the whole marine licensing regime. The outcome of the Marine Licensing Fees Review will set out all costs and associated fees for the wider regime.

673. Overall estimated costs to NRW per ten year period are £757,330.

674. Costs to developers / industry, under the no change option are £29,441.37 per annum. Over ten years, this equates to £294, 413.70.

675. Under this option the following assumptions have been made:

- A fees review will be undertaken in relation to fees that already exist, so the costs for activities already charged for will be fully recovered.
- The current level of licensing activity is maintained over a ten year period
- (If there is an upturn in licensing activity, the costs to NRW would increase proportionately).
- NRW continue to not charge for pre-application formally and continue to take a light touch approach.
- NRW take the same approach to variations and review of draft ES and
- No monitoring of disposal sites will be carried out.

678. The information provided as do nothing/baseline option are provided in table 37.

Table 37

BREAKDOWN ESTIMATED BASELINE COSTS INCURRED BY NRW UNDER THE DO NOTHING OPTION:

Activity	Estimated Number received per annum	Estimated NRW MLT staff time per case (hours)	Cost (@ £55 per hour) staff time per annum (£)	Estimated mean number in which Cefas advice sought per annum	Estimated Mean Cefas costs per annum (£)	Fee/Recoup from the applicant (£)	Estimated Mean cost to NRW (staff costs and Cefas costs-fees) (£)	Estimated cost to NRW over ten years (staff costs + Cefas costs) (£)
Screening and Scoping	8	16	7040	8	1806	0	8846	88460
Draft ES reviews	1*	20	1100	1**	8036.37	8036.37	1100	11000
Basic queries	260	2	28600	0	0	0	28600	286000
Administrative Variations	33	5	9075	0	0	0	9075	90750
Non substantial Variations	1	10	550	1	710	710	550	5500
Substantial Variations (new application)	2	New application	New application	New Application	New Application	New Application	New Application	New Application
Transferring a licence	0.2	2-3	22-33	0	0	0	22-33	220-330
Suspending or Revoking a licence	0.2	2-3	22-33	0	0	0	22-33	220-330
Discharge of Conditions	29	3.7	5902	12	11448	0	17350	173500
Monitoring EIA Licences	13	4	2860	7	19934	19934	2860	28600
Monitoring Non-EIA	2	4	440	1	5684	0	6124	61240

Licences								
Handling of OSPAR returns	-	25	1375	-	548	0	1923	19230

Option 2 – Administrative change

679. All costs will be as described under option 1 with the exception of:

Pre-application – Screening and Scoping

680. NRW has a statutory duty to respond to Screening and Scoping requests under the Marine Works Regulations (MWR). Under Option 2 NRW would utilise the existing ability to charge for Screening and Scoping requests as outlined in the MWR.

681. Although actual fees for these activities will be set following a fees review, the objective is greater cost recovery meaning that we expect (where possible) the costs to be borne by users of the marine licensing system.

682. Under this option, the NRW cost of responding to a Screening and Scoping request under the MWR would be transferred from NRW to the organisation making the request. On the basis of the assumption set out under Option 1, this would result in an estimated saving to NRW (on the baseline), inclusive of Cefas costs, of £8846 per annum (for full breakdown see table 37) with a corresponding additional cost to the users of the marine licensing system of £8846 per annum.

683. Total savings compared to option 1 to NRW are £88,460 over 10 years.

684. Total additional costs to users of the marine licensing system compared to option 1 are £88,460 over 10 years.

Conclusion and assumptions

685. Under the administrative change option, it is forecasted that NRW would continue to effectively subsidise aspects of the administration of the marine licensing regime (e.g., pre-application, variations, post consent monitoring). Further the cost to some applicants may be higher overall compared to option 3, because of the reduced level of service that NRW will be able to offer in relation to pre-application.

686. So, overall, estimated costs incurred by NRW under option 2 are reduced to £668,870 over ten years. This reduction is due to the removal of £88,460 Screening and Scoping costs from the baseline, option 1.

687. The overall cost to some applicants under option 2 may be higher than the legislative option 3, because of the reduced level of service that NRW will be able to offer in relation to pre-application.

688. Overall, anticipated costs to industry over ten years, compared to option 1, would be increased to £382,863.70.

689. Under this option the following assumptions have been made:

- A fees review will be undertaken in relation to fees that already exist and those that NRW have the power to charge for (and would do so under this option), so the costs in those activities would aim to be fully recovered.
- The current level of licensing activity is maintained over a ten year period
- (If there is an upturn in licensing activity, the costs to NRW would increase proportionately)
- NRW take the same approach to variations and review of draft ES and
- No monitoring of disposal sites will be carried out.

Option 3 - Legislative change

690. Under Option 3, alongside the legislative change, the administrative changes under option 2 will also be put in place. As with Option 2, this option will result in the transfer of some costs from NRW to the users of the marine licensing system. However, the scope for transferring costs is wider in this option than under option 2.

691. The actual fees for these activities are currently unknown. Fees will be set following a fees review, the objective is greater cost recovery meaning that we expect, where possible, the costs to be borne by users of the marine licensing system. Full consultation on the structure and appropriate level of fees will be undertaken by Welsh Government and NRW in order to establish actual fees.

692. Industry and NRW may incur costs for making minor changes to their systems to take into account the processing of payments and receipt of payments for the wider marine licensing charges. NRW advise that they would not expect the cost of system changes to be significant, if any. So, we expect the total cost of this would be minimal.

693. NRW will incur costs in relation to advising licence holders and users of the system that there will be a change to fees. However, it is anticipated that this could be achieved through Business As Usual (BAU) communications. The fees review is also an opportunity to communicate the changes and how they are being brought into effect. The fees review is covered by BAU costs also.

Pre-application work

694. Under the Legislative change option, NRW would offer a full pre-application service and the costs would be transferred to the users of the marine licensing system. Under Option 3, the costs incurred for handling, including the cost of external advice on all pre-application services would aim to be fully recovered.

695. This would allow NRW to recover the estimated £38,546 currently borne per annum for handling pre-applications at a comparable cost to users of the marine licensing system (see table 37).

697. Responding to Screening and Scoping requests as to whether a project requires Environmental Impact Assessment (EIA), and if so, the scope of the assessment under the MWR is a statutory requirement and is carried out by NRW, under this option, costs would be recovered, as in option 2 also of £8,846 per annum.
698. Handling of basic queries, on average 2 hours per query, approximately 260 queries per year is currently being done at a cost to NRW of £28,600 per annum.
699. It is estimated that approximately 20 hours of officer time is required per ES review, equating to £1,100 per ES, but this can vary greatly depending on size of development and level of service requested by the applicant. It is not possible to provide costs per annum as this service has not been provided historically and is not currently a service actively promoted by NRW, albeit it has been provided informally. It is anticipated that if Cefas advice is required, it will be in the region of £8036.37. This data is based on a single case, so it is recognised that figures could vary on a case by case basis. It is expected that the number of requests for review of ES will increase once the service is fully promoted.
700. A more extensive pre-application service could be provided by NRW under this option.
701. A more extensive pre-application service would meet the industry expectations of a higher level of engagement and standard of service, ensuring adequate NRW engagement at early stages of projects. Anticipated benefits of pre-application could include ensuring appropriate modelling and data collection to inform applications are undertaken, to avoid later delays within the application phase. Benefits to both parties through engagement at the pre-application stage would be realised.
702. This option would also be expected to result in lower costs at application stage because the process would essentially be front loaded. And by confronting issues at an early stage, the time taken to resolve issues is often less so overall costs are lower. Ensuring sampling plans or monitoring plans, modelling and data collection protocols are agreed prior to their collection to ensure that level of modelling is either at an adequate yet non over-onerous level.
703. The number of projects anticipated to engage in pre-application on an annual basis is approximately 70 per year. This is based on an expectation that around 85% of applicants would seek some level of pre-application advice, be that basic queries, early discussions, screening and scoping or full and in-depth advice and assistance prior to application).
704. Actual costs are likely to vary significantly depending on type, scale and complexity of project. Pre-application is a voluntary option, so users of the marine licensing system can choose whether to engage or not and thus be

subject to fees (however, it is anticipated that overall costs to users may be greater if they do not use the pre-application service). Evidence of this can be found in the Evaluation of the Planning Permission Process for Housing report¹⁰⁰.

705. Fees for charging pre-application services will be established following a fees review and public consultation.

706. The costs currently borne by NRW for pre-application services, would transfer to industry – see options 1 and 2.

Varying a licence

707. Under Option 3 a fee will be applied to administrative variations of a marine licence, these are currently undertaken free of charge and at a cost to NRW under option 1 and 2. The Marine Management Organisation (the licensing authority in England) charges an upfront fee of £50 for purely administrative changes. The Welsh Government anticipates, although subject to a fees review, that something similar will be applied in Wales. The administrative variations fee will be charged to the licence holder and will be established following a fees review and public consultation.

708. In Option 3 where re-assessment is required but it is not a significant change, a variation fee will be applied (in contrast to the licensing authority requesting a new application currently, as outlined in option 1 and 2).

709. As now, and as under Option 1 and 2, if a change to a project is considered 'significant', a new application will be required. This would allow NRW to recover the estimated £9,625 (inclusive of staff costs and cost of external advice) currently borne per annum for handling variation requests. (see table 37 for full breakdown).

Transferring, suspending or revoking a licence

710. NRW, under option 3, would be able to recover costs when a licence holder wishes to transfer, suspend or revoke a licence. Based upon past experience and experience elsewhere in the UK, this scenario is likely to be infrequent so, for the purposes of this RIA, we forecast two transfers and two revocations over ten years.

711. This would allow NRW to recover the potential estimated cost of £44-66 per annum for handling requests to transfer, suspend or revoke. (see table 37 for full breakdown)

¹⁰⁰ <http://wales.gov.uk/topics/planning/planningresearch/publishedresearch/evaluating-planning-process-for-housing/?lang=en>

Monitoring of a marine licence, to include monitoring reports and compliance testing

Discharge of conditions

712. NRW under option 3 would be able to recover costs for handling and seeking external advice on discharge of conditions. This would allow NRW to recover the potential estimated cost of £17,350 per annum for handling discharges of conditions. (see table 37 for full breakdown)

Monitoring conditions

713. In cases where the MWR do not apply, option 3 would allow for NRW to recover the costs for handling and seeking external advice upon the monitoring of marine licences. Based on the estimates presented under Option 1, this would result in a cost of £6,124 per annum transferring from NRW to the business concerned.

714. In cases where the MWR do apply, i.e. an EIA related marine licence, NRW is currently able to recover the costs of monitoring and for external advice. This would continue under option 3.

Monitoring of disposal sites and disposal returns

715. Option 3 would allow NRW to recover the costs for monitoring 14 disposal sites within Welsh Territorial Waters, should a need for monitoring be demonstrated.

716. As NRW have no figures with regards to the cost of monitoring disposal sites in Wales, data from the MMO has been used to provide an estimated costs that could be incurred by NRW should monitoring be necessary. For the 2014/2015 monitoring regime the MMO will be billed £250,000 for the monitoring of 6 sites in English Waters, which are chosen on a risk basis. This monitoring cost can vary greatly depending on the targeted sites. It is anticipated that fewer sites would be monitored in Welsh Waters, due to the comparably lower number of designated disposal sites in Welsh territorial waters.

717. It is anticipated that with the power to charge, disposal site monitoring will be carried out in Wales, subject to the need for the monitoring being justified. Applicants who use the disposal sites would be charged a fee which would in part, or in full, cover the costs of such monitoring. The fee is currently unknown, this will be established after the fees review and a formal consultation has taken place.

718. Under Option 3, NRW would be able to recover the costs for monitoring the quantity of material disposed at sea. This would allow NRW to recover the £1,923 per annum incurred by NRW to process disposal returns, associated with reporting to OSPAR. (see table 37 for full breakdown)

Conclusion and assumptions

719. Under the legislative change option, NRW subsidising the administration costs of the marine licensing regime is removed and the cost is borne by users of the regime. Applicants/users of the system come from a range of different sectors and licences are required for some regular activities (e.g., maintenance dredging) and also demand led/business led projects that may be one off projects and as such arise on a more ad hoc basis.
720. Costs to NRW should be neutral on the basis of greater cost recovery being achieved. Anticipated costs to applicants/users of the marine licensing system under this option are expected to be £105,174.37 per annum/ £1,051,743.70 over ten years. Across the whole regime, in 2014/15, Marine licensing fees received are expected to be in the region of £300, 000.
721. However, the increased cost to applicants/users of the licensing system does not include efficiencies that can be achieved through a greater pre-application service, so overall costs likely to be less. For example, benefits of pre-application are that applications are likely to be determined more swiftly, as issues are identified earlier in the process and the applicant will have more security that modelling carried out is acceptable to consultees. It is also expected that if an hourly rate charge is introduced following the fees review, the overall fees are likely to be less than if no pre-application is carried out.
722. Under this option the following assumptions have been made:
- A fees review will be undertaken in relation to fees for all aspects of the marine licensing system and the costs for those activities would aim to be fully recovered.
 - The current level of licensing activity is maintained over a ten year period
 - (If there is an upturn in licensing activity, the costs to applicants/users of the marine licensing system would increase proportionately.

Part 6: Benefits

Option 1 – Do nothing

723. There would be no additional costs to applicants and licence holders if the existing approach continues (above routine fees review and consequent amendments).
724. Users would have a fees and administrative system that they are already familiar with.

Pre-application work

- Developers would benefit from a free of charge, but limited, pre-application service.
- No upfront costs at the project development stage.

Varying a licence

- Administrative variations carried out free of charge.

Transferring, suspending or revoking a licence

- Free of charge service

Monitoring of a marine licence, to include monitoring reports and compliance testing

- Free of charge service for handling non-EIA related monitoring
- Free of charge discharges of conditions
- Free of charge OSPAR disposal return handling

Option 2 – Administrative change

725. There will be limited change to the system.

Pre-application work

- NRW would be able to recover costs for screening and scoping.
- For a wider pre application service, developers would benefit from a free of charge, but limited, service.

Varying a licence

- Administrative variations carried out free of charge.

Transferring, suspending or revoking a licence

- Free of charge service.

Monitoring of a marine licence, to include monitoring reports and compliance testing

- Free of charge service for handling non-EIA related monitoring
- Free of charge discharges of conditions
- Free of charge OSPAR disposal return handling

Option 3 - Legislative change

726. Having a full suite of charging powers will allow NRW to achieve greater cost recovery in undertaking its functions under the Marine Licensing regime. This will enable NRW to offer additional services such as more thorough pre application input, which will benefit both the applicant and NRW's licence determination process. In summary, it will allow NRW to provide a marine licensing regime that is fit for purpose.

727. The benefit of this option is that the licensing regime will operate on a greater cost recovery basis.

Pre-application work

- Adequate focus can be put on the pre-application stage, which is anticipated will reduce costs and delays at application stage, thereby helping to streamline the process.
- By charging for pre-application advice, more time will be available to support the customer at the crucial front end of the process.
- A more thorough pre-application stage will allow for better applications to be submitted, making the formal application stage slicker.
- Pre-application surveys undertaken by the applicant are more likely to be fit for purpose and as such companies are unlikely to have to incur additional costs for either adding to surveys that were insufficient or by undertaking more surveys and analysis than necessary. Evidence of this can be found in the Evaluation of the Planning Permission Process for Housing report.

Varying a licence

- Having powers to recover costs for variations will benefit the licence holder by removing the need to resubmit a new application where some parameters of a project or operation have changed.
- Proportionate costs can be applied to project changes using a predefined charging structure.
- Applicants can have more certainty of approach with predetermined parameters of what constitutes a minor variation, variation or what would require a new licence application.
- An ability to charge a variation fee for small changes would be useful to reflect the work of the licensing authority and may also deter licence holders from requesting un-necessary changes thus ensuring efficiency of approach.

Transferring, suspending or revoking a licence

- No licences have been transferred to date but the ability for NRW to charge for this service is a benefit to them, which would otherwise be a cost.
- NRW have not suspended or revoked a licence to date, but the ability for NRW to charge for these services is a benefit to them, which would otherwise be a cost.
- An ability to charge a proportionate fee would provide certainty and clarity for the customers involved.

Monitoring of a marine licence, to include monitoring reports and compliance testing

- A consistent approach to costs associated with monitoring of projects (both EIA and non-EIA) will ensure a simple and fair approach to monitoring.
- The power to recover the costs of monitoring will enable longer licences to be granted through the inclusion of conditions to monitor the environmental impacts and removing the need to re-submit licence applications more regularly.
- Reduced delays in processing monitoring reports, as adequate resource will be available. Delays in acceptance of monitoring reports can have knock on to new licences, as they can delay assessment on a new application, as waiting on monitoring feedback on previous licence.
- Reduction in delays will also ensure that potential risks to the environment, human health or legitimate sea uses are identified and rectified in a timely manner, as this will be highlighted at an earlier point in the licence.
- Ability to monitor designated disposal sites as costs can be recovered.

Part 6: Summary and Preferred Option

728. It is right and proper that costs should be borne by the users of the marine licensing system. It is inappropriate for NRW to continue to subsidise the costs of administering the marine licensing regime.

729. A summary table of the costs to NRW over a ten year period for each option can be found in table 38 below and summary of costs to applicants/licence holders can be found in table 39. Under the legislative change option, the aim is to achieve greater cost recovery and the final costs will be refined through the Marine Licensing Fees Review project.

Table 38 Summary of estimated costs to NRW under Options 1, 2 and 3 over a ten year period

Option	Pre-application (£)	Variations (£)	Revoke, Suspend and Transfer (£)	Monitoring, discharge of conditions and compliance (£)	Total Cost to NRW over ten years (£)
1 (do nothing)	385,460.00	96,250.00	440-660.00	282,570.00	767,940.00
2 (administrative)	297,000.00	96,250.00	440-660.00	282,570.00	676,480.00
3 (legislative)	0	0	0	0	0

Table 39 Summary of estimated costs to the applicant/licence holder under Options 1, 2 and 3 over a ten year period

Option	Pre-application (£)	Variations (£)	Revoke, Suspend and Transfer (£)	Monitoring, discharge of conditions and compliance (£)	Total Cost to applicant / licence holder over ten years (£)
1 (do nothing)	80,363.70	7,100.00	0	0	87,463.70
2 (administrative)	168,823.70	7,100.00	0	0	175,923.70
3 (legislative)	465,823.70	103,350.00	440-660.00	481,910.00	1,051,743.00

730. Option 1 would be at an ongoing cost to NRW and therefore does not support the achievement of greater cost recovery. Option 2 would avoid the need for legislative change whilst allowing NRW to recover more of its costs but would not allow NRW to recover its full costs and therefore also not meet the objective of greater cost recovery. Further, option 1 or option 2 would not allow NRW to offer a comprehensive pre-application service meaning that opportunities to front-load the process and delivery subsequent efficiencies would not be secured.

731. The preferred option is Option 3 – Legislative change, because it would enable the licensing authority to achieve the objective of greater cost recovery and offer a comprehensive pre-application service.

732. Under the preferred option, there are increased costs to the users of the regime, however, it is anticipated that benefits realised outweigh the costs due to an enhanced service that will be offered by NRW. This is particularly relevant at the pre-application phase which will allow for a more streamlined determination of the full application, which could result in less need for variation and post consent monitoring also.

Part 7: Miscellaneous

Flood Risk Management Wales

734. The current role of Flood Risk Management Wales (FRMW) Committee is to scrutinise Natural Resources Wales and provide consent for their programme, issuing of levies and revenue spend. Much of the current role of FRMW is duplicating the role of the NRW Board in terms of scrutiny and advice to NRW.
735. The need to change this committee has been identified, not only to remove this dual accountability of NRW to FRMW and their own board, but also to provide a wider advisory role to the Welsh Ministers on a wider remit to include all sources of flooding.

Options Analysis

736. Three options for the future of Flood Risk Management Wales (FRMW) in terms of changes to the committee have been identified.

Option 1 - Do Minimum (baseline) – Maintain functions of FRMW with non-statutory changes

737. The functions of FRMW would remain as they currently stand.
738. This option could allow Welsh Ministers to request that FRMW undertake additional advisory (non-statutory) functions to complement their existing statutory duties which could involve aligning FRMW's scope with the flood risk management objectives under the National Strategy for Flood and Coastal Erosion Risk Management in Wales and provide advice to all risk management authorities (not just NRW).
739. There are limitations to what non-statutory changes can achieve. They would not fully overcome the dual accountability issues identified in relation to FRMW and NRW's Board. Furthermore, whilst placing additional, non-statutory functions on FRMW would start to help align FRMW with the wider flood risk management agenda in Wales this may not carry the weight to influence others, in particular, local authorities or independent bodies.

Option 2 – Changes to FMRW through secondary legislation

740. This option would retain FRMW but the Welsh Ministers would propose amendments to its functions under secondary legislation (The Regional Flood and Coastal Committees Regulations (England and Wales) 2011) to better reflect our considered needs for a wider flood risk management approach.
741. This option could, for instance, involve amendments such as changing the method for appointing committee members, so that the Welsh Ministers

rather than NRW would be directly responsible for appointment. Membership could be reviewed to reflect a wider view of flood risk management.

742. Through this option, it would not be possible to amend FRMW's statutory functions as set out in the Flood and Water Management Act 2010. This option taken in isolation may not address the concerns over dual accountability over NRW's flood programme or ensure that FRMW's functions were more closely aligned with the delivery of the Welsh Government's National Strategy.

Option 3 – Make the Legislation – Changes to FRMW Committee through the Environment Bill (preferred option)

743. This option would involve changing the statutory functions of FRMW to align with a wider flood risk management approach. This would also provide the opportunity to address the dual-accountability issues between FRMW and the NRW Board through primary legislation in the Bill.

744. Through this option, the duties of FRMW in terms of scrutiny of NRW would be removed and a more advisory/consultative committee formed. This new committee would therefore be a body capable of advising the Welsh Government on the wider flood and coastal erosion risks management in Wales, covering surface water, main rivers, ordinary water courses, coastal flooding and coastal erosion.

745. This option would also enable us to ensure that we have the right governance arrangements going forward that focus on the delivery of the National Strategy for Flood and Coastal Erosion Risk Management in Wales.

Costs

Option 1 – Do nothing - Maintain functions of FRMW with non statutory changes

746. Costs will be unaffected by the additional advisory functions. The current costs include:

747. The payment of the Chair of the Committee, which is £17,500 per annum. This covers a minimum of 5 days working per month. This cost is currently being met by NRW through their Grant in Aid.

748. Committee members are entitled to travel and subsistence allowances in respect of expenditure undertaken while on FRMW business – which is estimated at approximately £3,900 per year (average over past two year)

749. Currently NRW provide a secretariat for the committee (at a cost of approximately £480 per year). NRW have estimated that they currently spend approximately 1280 hours preparing for FRMW meetings, providing

papers and attending meetings, estimated at approximately £40,000 per year, this is based on 259 NRW officer hours, 71 NRW manager hours and 49 NRW executives per meeting (figures provided by NRW).

750. These figures relate to 9 meetings per year associated with Flood Risk Management Wales

Option 2 - Changes to FRMW through secondary legislation

751. While membership of the committee will be reviewed and there may be some changes to the way that committee members are appointed, the overall running costs are unlikely to change from the current arrangements as outlined in option 1 above. Therefore there are no marginal costs for this Option compared to the 'Do Minimum baseline.

752. Through this option, there may be additional work to revise the Terms of Reference of the committee/guidance following changes to secondary legislation. This would be provided internally and therefore costs limited.

Option 3 – Make the legislation - Changes to FRMW Committee through Environment Bill (preferred option)

753. Cost would not increase from the current arrangements (outlined in option 1). The Minister for Natural Resources will appoint a chair to the new committee – the current chair is salaried at £17,500 per year. There may be recruitment costs associated with this option, should the Minister choose to appoint outside of Welsh Government, although these costs would have been incurred under the 'do minimum' option to recruit a new chair to the committee. Committee members could still claim travel and subsistence.

754. All costs are currently met by NRW as part of their annual grant. Under the new legislation, costs associated with a new committee would be met directly by the Welsh Government. This would result in a reduction in the NRW annual grant in aid and would therefore be a transfer of costs, rather than a creation of new costs. The costs for preparing for FRMW meetings outlined in Option 1 would reduce through this option as less time will be required to prepare for and attend meetings for their programme and budget to be scrutinised. A representative(s) from NRW would still be involved in the new committee; therefore full costs would not transfer to Welsh Government.

755. Through this option, costs are likely to be saved; there will be no negative financial impact.

Benefits

Option 1 – Do nothing

756. Changes could be made immediately to the committee; however these would be non-statutory changes. The Welsh Government could request additional advisory tasks be undertaken to align with National Strategy. The dual accountability for NRW would remain. No other benefits would be achieved.

Option 2 – Changes to FRMW through secondary legislation

757. Amending the Regional Flood and Coastal Committees Regulations 2011 would enable changes to be made to some of the issues that have already been brought to light including the appointment of the Chair and committee members. The duties of FRMW as set out in the Flood and Water Management Act 2010 would not be addressed and therefore the dual accountability for NRW would remain.

Option 3 – Make the legislation – Changes to FRMW Committee through the Environment Bill (preferred option)

758. This option would establish a more advisory/consultative body for flood and coastal risk management in Wales and would remove the current dual accountability of NRW around their programme and budget. This option would also ensure that the purpose and scope of the committee is aligned with the National Strategy.

759. This option would provide the Welsh Government with advice on all sources of flooding managed through all Risk Management Authorities, not just NRW. The proposal will enable the Welsh Ministers to make regulations on the membership of the committee and payments to the Chair and committee members. By making these changes through the Bill, the requirement for NRW to consult with the committee on their programme and budget can be removed, therefore removing the capability of FRMW to veto the NRW budget and programme. NRW have estimated that staff (excluding the secretariat role) spend 1280 hours per year in preparing, providing papers for and attending FRMW committees. This has been estimated at approximately £40,000 per year. Although some of this work will remain with NRW, especially in preparing similar papers for their own board, there will be cost savings to NRW in time spent consulting with the committee.

760. Cost savings will be achieved by providing a more efficient advisory committee in relation to flood and coastal erosion risk management in Wales. Cost savings are difficult to quantify at this stage and are dependent on the composition of and organisational arrangements for the new committee. Information will become available when a decision is made on the format of the new committee. The RIA has been updated to reflect this.

Summary of preferred option

761. The preferred option is to bring in a new provision within primary legislation through the Bill to establish a new committee to oversee and provide advice to the Welsh Ministers on all sources of flooding, not just main rivers and the sea as at present through NRW.

762. By making these changes through the Bill, the requirement for NRW to consult with the committee on their programme and budget can be removed, therefore removing the capability of FRMW to veto the NRW budget and programme. This will address the current issue of current dual accountability of NRW between FRMW and NRW Board.

763. This new committee would provide advice directly to the Welsh Ministers regarding flood and coastal erosion risk management across all of Wales and will provide assurance that flood risk management across Wales is aligned with the National Strategy.

Summary table 40: key costs and benefits for preferred option for FRMW Committee

Policy	Key Costs	Key benefits
Changes to FRMW Committee through Environment Bill	<p>Monetised</p> <p>If there is a salaried chair, the costs of this role (currently £17,503).</p> <p>Travel and subsistence costs (currently estimated at £3918 per year).</p>	<p>Monetised</p> <p>Reduction in time and therefore costs (up to £40,000 per year) of NRW staff in preparing for and consulting with the committee.</p>
	<p>Non-Monetised</p>	<p>Non- Monetised</p> <p>Reduce unnecessary burden and duplication of scrutiny on NRW.</p> <p>Provide direct advice to the Welsh Ministers on flood and coastal erosion risk management.</p> <p>Ensure flood risk management in Wales is aligned with the National Strategy.</p>

Part 7: Land drainage

764. The following assessments include 3 sections in relation to repeal of requirements to publish in local newspapers, power to make regulations for the valuation of non-agricultural land for the apportionment of drainage expenses, and powers to make provision for appeals against special levies, the impact of each has been assessed against 2 possible options for inclusion in the Bill. Also included is an assessment in relation to a power of entry to ensure compliance with an order for cleaning ditches.

IDB – Advertising requirements

Options Analysis

Option 1 - Do Nothing (Baseline Option)

765. As stated in the Land Drainage Act 1991, a number of the IDB functions include a requirement to advertise schemes and orders in local newspapers, including the London Gazette. The current advertising requirements are inflexible and out of date. By doing nothing, they would remain in place.

Option 2: (preferred option)

766. To remove the requirements for advertising in local newspapers and in the London Gazette and introduce a more streamline and modern system. The intention is therefore to amend all relevant sections in the Land Drainage Act 1991 to allow for a wider, more targeted distribution of notices (e.g. use of electronic means, parish notice boards) whilst retaining a fair, open and inclusive process, taking full advantage of local knowledge to ensure that the advertising reaches the appropriate people. The requirement for advertising has already been removed in England via the Water Act (2014).

Costs

Option 1- Do Nothing

767. Costs for local newspaper advertising can vary. The current costs relating to advertising in the London Gazette are approximately at least £200 at a time.

Option 2– preferred option

768. IDBs consider that the cost of advertising in local newspapers is often disproportionate to the benefit. An advert in the London Gazette costs approximately at least £200, these are one off costs. There are not expected to be any additional administrative (staff) costs associated with

preparing an advert and publishing it online, therefore, by removing the obligation to advertise in the London Gazette presents a saving of at least £200 per advert. These are costs that would be incurred from time to time. Adverts relating to IDBs have been placed very infrequently over the years.

Benefits

Option 1 - Do Nothing

769. Doing nothing would mean that existing practice for advertising would remain in place. No benefits can be identified for this option, hence the reason for change. A cost of at least £200 would still apply when advertising via out of date avenues.

Option 2– preferred option

770. This option would remove the requirement for schemes and orders which apply to Wales only, to be advertised in the London Gazette. Officers would make arrangements more appropriate to Welsh and local needs. Advertising online would not present any additional costs and would be easier to access and potentially reach a wider audience.

Summary of preferred option

771. Option 2 is the preferred option. As well as being more cost effective, it would offer arrangements more appropriate to local needs.

IDB – Local Authority Appeals Mechanism

Options Analysis

772. IDBs raise income primarily through powers under section 36 of the 1991 Land Drainage Act. There is existing provision for appeals by ratepayers and local authorities to be made against drainage rates against the precept raised by NRW on the IDB. There is, however, no provision for local authorities to appeal the non NRW element of the IDB expenses, because the IDB itself sets the levy and contains a majority of local authority nominated members.
773. The policy objective is to address local authority concerns that NRW might raise unreasonable levies on local authorities following transfer of the levy raising powers to NRW.

Option 1 - Do Nothing

774. No appeal system put in place for local authorities. The local authorities will not have any legal mechanism to appeal to the Welsh Ministers in respect of the levy issued by NRW.

Option 2 - (preferred option)

775. To provide an appeal mechanism for local authorities to challenge levies issued by NRW.
776. As local authorities will no longer have any say in the setting of levies, an appeal mechanism will give them a degree of protection against levies they deem to be unreasonable.

Costs

Option 1- Do Nothing

777. No cost.

Option 2 – Preferred option

778. The costs of this option would be minimal. The cost of a local authority appeal would consist of staffing costs associated with preparation of advice to the Minister. We conclude that these costs would likely be less than £100. This builds on existing appeals arrangements which apply to other NRW charges, and is unlikely to be regularly used.

Benefits

Option 1- Do Nothing

779. No benefits with the baseline option

Option 2– preferred option

780. This option offers local authorities a degree of protection against unfair levies.

Part 7: Summary of preferred option

781. Option 2 is the preferred option as it ensures continued protection for the local authorities at a minimal cost.

Internal Drainage Boards (IDB) – Drainage Rates

Options Analysis

782. At present, s37(5)(a) and (b) of the Land Drainage Act 1991 provide for drainage rates in relation to property in internal drainage districts to be set by reference to the value of those properties on the 'non-domestic rating list' for 31 December 1992, or on the 'valuation list' prepared under Part V of the General Rate Act 1967 for 31 March 1990, respectively. So far as the "valuation list" is concerned, the General Rate Act 1967 was repealed by the Local Government and Finance Act 1988, but the 1991 Act recognised this and set the date of the valuation lists to be used as 31 March 1990.
783. However, following communication with a number of local authorities, NRW has recognised that the non-domestic rating lists from 1992 and the valuation lists from 1990, being 23 and 25 years old, have been lost or destroyed. This therefore renders the method of proving the values for drainage expenses under s37(5)(a) and (b) unfeasible. Options are:

Option 1 – Do Nothing:

784. Out of date rating lists would continue to be used.

Option 2 (preferred option)

785. Enabling the Welsh Ministers to make regulations relating to drainage rate charges, will ensure that the valuation method to be used is accurate. This will also allow those methods determined by regulations to be amended in the future, as appropriate, thus, assuring a level of flexibility in the process.

Costs

Option 1 – Do nothing

785. No cost.

Option 2 – preferred option

787. This option will allow the Welsh Ministers to make regulations to enable the use of alternative valuation methods. Costs are expected to be limited to those associated with making regulations, together with the cost of implementing the approach defined by the regulations. These costs will be set out in an RIA at the time the regulations are brought forward.

Benefits

Option 1- Do Nothing

788. No benefits with the baseline option

Option 2– preferred option

789. This effect this option will be to allow stability in the charging regime.

Summary of preferred option

790. Option 2 is the preferred option as it ensures that the valuation method be used is accurate, in addition to permitting continued protection for those local authorities effected, at a minimal cost.

Part 7: Land Drainage – power of entry

Options Analysis

791. Where work required under an order made by the Agricultural Land Tribunal (ALT) has not been complied with the Welsh Ministers may enter the land to carry out the work and recover the cost from the respondent. However the power may only be exercised if the order has not been complied with and it is unclear from the current legislation whether the Welsh Ministers may enter onto the land to inspect the work as there is no express power to do this. This lack of certainty has resulted in some cases where the Welsh Ministers' agents have been refused permission to enter or they have been unable to contact the land owner to obtain permission. Options considered are:

792. **Option 1 - Do Nothing** - The enforcement powers in section 29(2) of the Land Drainage Act 1991 would remain unchanged which would mean that the power of the Welsh Ministers to enter the land for the purpose of inspection would continue to be unclear. In cases where respondents did not comply with the requirements of an Order, the lack of an express power would continue to limit the Welsh Ministers' ability to take enforcement action and, in some cases, render ALT orders ineffective. Land owners suffering from drainage problems on their land due to poor maintenance of drainage systems by their neighbours would be denied a remedy.

793. **Option 2 (preferred option)** - The preferred option is to amend section 29 of the Land Drainage Act 1991 to include an express right of entry to land. This would enable Welsh Government agents to enter the respondent's land or, where necessary other land, to investigate whether an ALT order has been complied with so that, where appropriate, they could enforce it. . This would ensure that ALT orders continue to be an effective way of addressing issues of flooding risk and promote the sustainable management of natural resources specifically in relation to water drainage management.

Costs

Option 1 – Do nothing

794. The cases referred to the Welsh Government where orders have not complied with are relatively rare and average one case every two years. However they are problematical and may take over a year to resolve. In cases where agents are unable to inspect the land they can be much longer.

Welsh Government

795. Key costs are bound in the amount of administrative time undertaken by the Welsh Government to deal with a particular case – for recent cases, this

has amounted to approximately 40 days per case which calculates to approximately £6400 (based on Welsh Government HEO pay scales for 2014-2015). Given an average of one case every two years, the average annual cost is approximately £3,200. 40 days at 7.24 hours at £22 per hour = £6371.

796. This also requires considerable input from lawyers as each communication has to be legally validated to assist in judicial scrutiny. It is estimated that presently one lawyer will spend approximately 15% of their time on ALT cases. This equates to approximately 266 hours a year or 37 days. 15% of a senior lawyers time at £69,408pa = £10,411.

797. In addition to the administrative costs, the Welsh Government is expected to incur costs associated with hiring a land expert to investigate a case. Each site visit by an expert costs approximately £600. In more problematic cases, the costs could be significantly more as multiple site visits may be required. In a recent case, costs to the Welsh Government for the experts' site visits were approximately £4,500. Average annual costs are therefore estimated to be between £300 and £2,250 depending upon the complexity of a case and the number of site visits required.

798. While the Welsh Government incurs these costs, if a landowner refuses access to land the expert agent may not be able to investigate the full outcome of the case, undermining the governance of the ALT.

Landowners

799. An Applicant responsible for raising a case through an ALT may incur considerable expenditure in raising the case, particularly if they seek legal advice and/or employ an independent land agent. These costs will be dependent on the circumstances and complexity of each individual case and the information required to calculate this cost is not available.

800. It does appear that the respondent can quite legitimately refuse access to verify whether they have complied with an ALT Order. The Welsh Government is responsible for meeting costs up to the physical enforcement stage

Option 2 – preferred option

801. There is not expected to be any change in the number of cases heard by the ALT as a result of the intended changes. Similarly, the number of cases referred to the Welsh Government is not expected to change although they should take less time to resolve if agents can inspect the land. This option is expected to result in small resource savings in making such an application (both in terms of time and money) on both the applicant and the Welsh Government.

Welsh Government

802. It is estimated that the Welsh Government could save up to £3,000 per case (up to £1,500 per annum) in relation to its expert agent's site visits and reports. Each case is individual and dependent on a range of circumstances, for example, the case could depend on length of time it takes to resolve a case due to the nature of the query, of which quantifications are difficult to measure.
803. Additionally, it is anticipated that the proposed changes will reduce the administrative costs incurred by the Welsh Government in dealing with the problematic cases. It is estimated that the right of entry to land may reduce the administrative resource requirement per case by up to 30 days (from an average of 40 days to 10 days). The administrative cost for 10 days of work on a case is approximately £1,600 or an annual average cost of £800. This equates to a saving of up to £4,800 per case or £2,400 per annum on average compared to the 'Do Nothing' option. The savings in Welsh Government legal time would amount to £5,477 per case. It is also estimated that the amount of time that a lawyer spends on a case is likely to decrease by half; therefore one lawyer would spend 7.5% of their time of ALT cases – 133 hours a year or 18 days.

Administrative costs

30 days at 7.24 hours at £22 per hour = £4,798
10 days at 7.24 hours at £22 per hour = £1,599.

This is in addition to legal services time savings.

5% of a senior lawyers time at £69,408pa = £10,411
7.5% of a senior lawyers time at £69,408pa = £5,206

804. It is anticipated that the proposals will result in savings to the Welsh Government. The drainage body to which the action would be delegated will recover any costs from the persons who refuse entry. This would include legal costs arising from serving notice of entry. There will be no costs falling to any public bodies as these would be recoverable from the respondent.

Landowners

805. As noted above, the costs to an applicant (i.e. landowner) in raising an Agricultural Land Tribunal case are unknown and will vary in each case.
806. Ultimately, the level of costs will depend on the extent to which legal advice is sought from the landowner and the scale of effort and time put into developing a case. We assess that future cases will vary greatly in terms of nature, scale and complexity.

807. By removing some of the complexity while enabling matters to be concluded sooner, we assess that the Bill provisions should give rise to time and resource savings. We assess that, as a result, costs to both the applicant/landowner and the Welsh Government are likely to be lower than those that would be incurred in similar circumstances under existing arrangements. .

Benefits

Option 1 – Do nothing

808. The option offers no benefits. It does however carry a risk in that the effectiveness of the ALT and the ability to enforce its orders would continue to be undermined. More widely, this option would have an adverse impact on flood risk management and policy in relation to the sustainability of natural resources.

Option 2 – preferred option

809. In addition to the cost-savings identified above, the changes are likely to lead to more successful resolution of ALT Orders and remedies for land owners whose land has suffered from poor drainage. This will ultimately benefit the regulatory framework for water drainage management, specifically in relation to drainage systems, and lead to environmental benefits arising from the successful free flow of drainage systems.

810. There are further potential indirect financial benefits which may arise from applicants having unfettered farming or other usage of their land which otherwise would be subject to water saturation or flooding.

Table 41: Summary table of key costs and benefits for preferred option for power of entry

Policy Area	Key Costs	Key Benefits
<p>Land Drainage Act 1991 - Agricultural Land Tribunal (ALT) Compliance Visits</p>	<p>Monetised</p> <p>The intended changes should realise resource savings in making such an application (both in terms of time and money) on both the applicant and the Welsh Government. The Welsh Government would save around 30 days per case in administrative time, resulting in savings amounting to approximately £4800 (or £2,400 per annum). In addition there might be up to £3,000 savings (up to £1,500 per annum) due to less site visits required by the Welsh Government’s expert agent.</p> <p>In addition, there will be savings in costs and time for Welsh Government lawyers involved in the case work – approximately £5,206 per annum.</p> <p>It is not anticipated that any additional costs will fall to the Welsh Government. The body to which the action would be delegated will recover any costs from the persons who refuse entry. This would include legal costs arising from serving notice of entry. There will be no costs falling to any public bodies.</p>	<p>Monetised</p> <p>Cost savings in site visits required for cases will be immediate - one site visit should be sufficient for an expert adviser to fully recommend what work remains to be carried out to fulfil an Order’s requirements. The threat of incurring enforcement work costs by a Welsh Government agent would normally prompt a respondent to carry out the works themselves, therefore, working as a preventative measure in the first instance.</p> <p>The proposed changes to the Land Drainage Act 1991 is likely to reduce the time it takes the Welsh Government to process an ALT Order in some specific instances where access has been refused for Welsh Government agents to investigate compliance with an ALT Order. This may reduce the time spent from two years to 6 months in some instances.</p> <p>Non monetised</p> <p>The changes are likely to lead to more successful resolution of ALT Orders. This will ultimately benefit the regulatory framework for water drainage management, specifically in relation to drainage systems, and lead to environmental</p>

		benefits arising from the successful free flow of drainage systems.
--	--	---

Impacts to the Justice System

Sustainable Management of Natural Resources

811. Section 12(1) of the Bill provides the Welsh Ministers with a power to direct a public body listed in section 10(1) to take such steps as appear to them to be reasonably practicable to implement an area statement. The public body must comply with a direction that has been issued to them. The direction is enforceable by the Welsh Ministers applying to the High Court for a mandatory order. Failure to comply with a mandatory order can lead to a finding of being in contempt of court.

Carrier Bags

812. Part 2 of Schedule 6 to the Climate Change Act 2008 provides for the Welsh Ministers to make provision by regulations about civil sanctions for any breach of regulations. The Bill will not give power to create any new civil sanctions but it will broaden the scope of the existing power in Part 2 so that civil sanctions may be applied in relation to a wider range of circumstances i.e. to breaches relating to different types of carrier bags and breaches relating to sellers non-compliance in applying the net proceeds to good causes as specified by Regulations. The number of new breaches is expected to be very low.

813. Paragraph 18 of Schedule 6 to the Climate Change Act 2008 provides for regulations to include a right of appeal to the First-tier Tribunal or other tribunal created under an enactment against the imposition of a civil sanction. The effect of the proposals will be that where the regulations make provision in relation to any type of carrier bags, or direct sellers as to whom they should apply their net proceeds to, paragraph 18 will give a right of appeal against breaches under those regulations. Whilst this may widen the circumstances in which a seller may be in breach of the Regulations, the impacts on applications to the First-tier tribunal will be negligible or minimal, taking into account historical data provided by the Welsh Local Government Association (WLGA). This data indicates that there has been minimal formal enforcement action taken in Wales under the current Regulations. There may be low numbers initially, these will be explored and identified in the implementation stages.

814. However, any future decision to use the extended primary powers to make regulations would be subject to a full and detailed impact assessment at that time.

Waste

815. The Bill provides the Welsh Ministers with the powers to bring forward statutory instruments and will not change what happens now. Should subordinate legislation be brought forward under the Bill provisions it is intended that civil and criminal sanctions are available should an offence be

committed. If justice impacts are identified at the implementation stage and new rights of appeal are created (through the General Regulatory Chamber First Tier Tribunal) the full implications will be assessed at the time.

Marine Licensing

816. Evidence on the impact to the Justice system indicates it will be low. It is not the intention to create a criminal offence for non payment of a fee or deposit. Instead, it is proposed that the licensing authority could vary, suspend or revoke a licence if the payment is not made. A non-payment may also be recovered by the licensing authority as a civil debt. However, should an operator continue to carry out a licensable activity following the revocation or suspension, or fails to comply with any condition of a marine licence, they will be committing a criminal offence pursuant to section 85 of the MCAA.

Shellfisheries

817. The First Tier Tribunal Service will be used in the unlikely event that the power to issue a Site Protection Notice is used and those affected by that Notice decide to appeal against that decision rather than working with the suggestions contained in the Site Protection Notice.

818. The right of appeal to the First Tier Tribunal against a Site Protection Notice is likely to be used sparingly. This is because a Site Protection Notice will only be issued where an unexpected environmental affect (resulting from the shellfishery) has or is likely to occur and where those affected by that Notice do not agree with the same. Given, in addition, that relatively low numbers of people are involved in shell fishing in Wales, it is anticipated that this right of appeal will be very rarely used. If justice impacts are identified at the implementation stage and new rights of appeal are created, the full implications will be assessed at the time

Land Drainage

819. Evidence on the impact to the Justice system indicates it will be very low. Provision to create power of entry will not create or amend any civil sanction, civil order or criminal offence. The provision will confer a power on the Welsh Ministers in relation to enforcement action but won't affect the role of the ALT or any other tribunal or court. It is estimated that there should be no increase in the number of applicants as a result of the provision.

820. Provision in relation to IDBs enable local authorities the right to appeal to the Welsh Ministers against any decision made by NRW in relation to the levies they set. This will provide for a system similar to one that already exists for different parts of the revenue which is set out in section 58 of the Land Drainage Act 1991.

Summary of key costs and benefits for the Bill as a whole

821. The following tables summarise the costs and benefits of the Bill, separately. For more information on the assumptions used, and un-monetised costs and benefits please refer to the individual sections on these policy areas. Please note that the majority of costs and benefits here have been presented in Present Value (PV) i.e. discounted using a 3.5% discount rate as per HM Treasury Green Book guidance, and are marginal to a 'do nothing' baseline. The below figures are also rounded to the nearest £10,000.

Table 42: Summary table of key costs for Bill as a whole

Policy Area	Costs
National Natural Resource Policy	<u>Costs to Welsh Government</u> Additional Staff time/resource: £0.21m PV (£205,400)
State of Natural Resource Report	<u>Costs to NRW</u> Additional Staff: £0.44m to £0.60m (PV) Training (staff): £0.03 to £0.56m (PV) Training (consultants): £0.02m (PV) Analytical Tools: £0.09m to £0.19m (PV) Total: £0.58m to £1.37m (PV)
Area statements	<u>Costs to NRW</u> Planning, Preparation and Roll-out: £1.11m to £1.22m (PV) Collaborative Governance: £1.22m (PV) New area-based / integrated evidence required: £0.00m (PV) New integrated ecological and social science evidence analysis for area statements: £0.10m to £0.19m (PV) SEA Sustainability Appraisal of Area Statements: £0.20m to £0.30m Total: £2.62m to £2.93m (PV)
Biodiversity Duty	One of the aims of the proposal is to ensure that the duty to maintain and enhance biodiversity is not an additional burden on public authorities, but instead, an integral component of the legislative framework under the Environment (Wales) Bill. There should be no significant net financial cost to public bodies as a result of extending the duty.

	There may be <i>some</i> small additional costs, for example associated with reporting element of the duty. However, the aim is that this reporting duty is neither onerous nor prescriptive but that public authorities should report every three years in a specific document or another suitable report on what steps they have taken to comply with their statutory obligations.
Experimental Schemes	No estimated/expected cost: £0m. Additional administrative and transaction costs could be between 10-20% of project costs.
Management Agreements	No estimated/expected cost: £0m
Total:	£3.40m to £4.51m (Present Value over 10 years)
Climate Change	<p>The implementation of legislative targets and a carbon budget framework in itself does not introduce additional costs to any stakeholders external to Welsh Government. In addition, the impact is determined largely by the level at which targets are set and would therefore need to be carefully evaluated when developing the regulations. This is a key reason why the legislation includes the provisions in relation to independent advice.</p> <p>Estimated administrative costs to the Welsh government would amount to a core team of up to five to coordinate the process plus a temporary increase in staff time within departments to administer and plan for setting of the carbon budgets. However, over time this resource requirement will be absorbed into business as usual of each department as has been the case within the UK Government.</p> <p>This is estimated at an average of £0.25m (£254,500) per annum, although there is expected to be peaks and troughs with the setting and administering of the carbon budgets.</p> <p>Additional independent advice on the level at which carbon budgets should be set,</p>

	<p>would be sought through the UK Committee on Climate Change (UKCCC). The estimated cost on initial advice would be a one off payment of around £43,500 and costs for progress reports of approximately £15,000 every 5 years. This totals £73,500 over 10 years. These figures still need to be confirmed and it still needs to be determined if it is additional to the existing funding already provided by the Welsh Government to the UKCCC.</p> <p>For the purposes of the RIA, the estimated additional potential costs have been included for illustrative purposes.</p>
Total:	£2.08m (PV over 10 years)
Minimum Charge on all carrier bag types	<p>Costs to Manufacturers: £8.25m PV Costs to Consumers: £115.50m PV</p>
Total:	£123.75m (Present Value over 10 years)
Application of Carrier Bag Charges to a good cause	<p>Business Costs: £0.80m PV Monitoring and Enforcement cost: £0.39m PV</p>
Total:	£1.18m (Present Value over 10 years)
Collection and Disposal of Waste	<p><u>Welsh Government</u> Administrative Costs: £0.09m PV</p> <p><u>NRW</u> Administrative Costs: £0.03m PV On-going costs: £0.43m PV</p> <p><u>Business Waste Producers</u> Administrative Costs: £3.34m PV</p> <p><u>Waste Management Business</u></p>

	<p>Administrative Costs: £1.56m PV Ongoing Costs: £1.38m PV Annualised opex/capex costs: £152.05m PV</p>
Total:	£158.88m (Present Value over 10 years)
Fisheries for Shellfish	<p>No transitional or additional communication costs are anticipated. Compared to the baseline, costs are not expected to change. That is, costs remain at:</p> <p>Welsh Government: £9,500 per application NRW: £10,400 per application Cefas: £17,500 per application Industry: £12,000 to £27,000 per application.</p> <p>However, a change in legislation will enable the Welsh Ministers to grant orders for a longer period of time, making them more attractive to the industry. The cost to the public sector of dealing with each additional application is estimated between £33,200 and £37,400.</p> <p>There would also be a cost of £550 to Welsh Government for preparing and serving a Site Protection Notice (SPN). There would also be a cost to the grantee if a SPN is served upon them. However, the number of SPNs that are issued is expected to be very low.</p>
Total:	£0m (PV over 10 years)
Marine Licensing	<p>NRW will be able to achieve the objective of greater cost recovery, meaning costs are transferred from NRW to the Marine Licensing regime.</p> <p><u>Cost increases to Marine License regime compared to baseline/Option 1) over 10 years</u> Pre-application: £385,460 Variations: £96,250</p>

	<p>Revoke and Transfer: £440-£660</p> <p>Monitoring, discharge, of conditions and compliance: £274,960</p> <p>Total: £757,330</p>
Total:	£0.65m (Present Value over 10 years)
Flood Risk Management Wales Committee (FRMW)	<p>All costs are currently met by NRW as part of their annual grant. Under the new legislation, costs associated with a new committee would be met directly by the Welsh Government.</p> <p>This would result in a reduction in the NRW annual grant in aid and would therefore be a transfer of costs, rather than a creation of new costs.</p>
Total:	£0m (PV over 10 years)
Internal Drainage Boards	<p><u>Advertising Requirements:</u> It is not expected that there are any additional (staff) costs associated with preparing an advert and publishing an advert online.</p> <p><u>Local Authority Appeals Mechanism:</u> Likely to be minimal. Builds on existing appeals arrangements and is unlikely to be regularly used.</p>
Total:	£0
Land Drainage	No additional costs are anticipated. Cost savings are made (see Benefits)
Total:	£0m (PV over 10 years)
OVERALL TOTAL (for the Bill)	£291.05m (PV over 10 years)

Table 42: Summary table of key financial benefits for Bill as a whole

Policy Area	Benefits
National Natural Resource Policy	<p>Benefits have not been monetised here.</p> <p>NNRP will provide a national level policy for the sustainable management of natural resources. It will ensure that social and economic benefits that derive from natural resource management are properly identified and factored into decision making alongside environmental benefits in a way that will ultimately help to improve the resilience of Wales' ecosystems.</p> <p>NNRP also may also lead to greater efficiency for other public bodies, and co-ordination of funding programmes for funders.</p>
State of Natural Resource Report	<p>Benefits have not been monetised here.</p> <p>SoNaRR will provide an evidence base at a national level which will help to inform future natural resource policy (NNRP) and delivery on an area basis. By doing so it will ensure that the health and functioning of natural resources and the resilience of ecosystems which will enable the delivery of social, economic and environmental well-being without compromising the ability of future generations.</p> <p>It is also anticipated that SoNaRR may provide benefits to other public bodies in that it will assist them in accessing socio-economic data to inform the obligations in sharing information.</p>
Area statements	<p>Benefits have not been monetised here.</p> <p>As set out by UKNEA (2011, p53) targeted strategic planning based on integrated information will enable long term risks to natural resources, such as those identified in UKNEA (2011) and State of Nature (RSPB, 2013), to be identified and</p>

	<p>minimised through better decision making.</p> <p>Other non-monetised benefits of area statements: efficiency for other public bodies, efficiency for NRW; efficiency for industry (private/3rd sector); co-ordination of funding programmes; informing other delivery plans.</p>
Biodiversity Duty	<p>Benefits have not been monetised here.</p> <p>This option would lead to greater efficiency as a result of streamlining public bodies' efforts in taking account of biodiversity; and better management of biodiversity related risk.</p> <p>Extending the duty to all public bodies and statutory undertakers has the potential to provide economic benefits, particularly in the medium and longer term. In particular, there are likely to be cost and efficiency savings arising from the collaborative approaches that the duty will encourage.</p> <p>The right mix of ecosystem services and the formulation of new markets, over the long term, will help to boost green growth and job creation.</p> <p>The biodiversity duty will also ensure that public authorities have regard to the purpose of conserving biodiversity in carrying out their functions links to ecosystem resilience, and should improve the capacity of our natural resources to provide ecosystem services such as clean water, good air quality, climate regulation and crop pollination, as well as providing habitats for wildlife. This can lead to social benefits of improved physical and mental health and well-being.</p>
Experimental Schemes	<p>Benefits have not been monetised here.</p> <p>A key benefit of this proposal is to provide evidence to support NRW to undertake</p>

	<p>an integrated approach to natural resource management, by trialling the new ways of working.</p> <p>Other non-monetised benefits of area statements: cost efficiency (NRW, other public bodies, 3rd and private sector); co-ordination of funding programmes/ new funding streams</p>
Management Agreements	<p>Benefits have not been monetised here.</p> <p>Management agreements will contribute directly to the improved resilience of ecosystems in Wales, e.g. through providing safeguards in the condition of natural capital assets such as natural flood defences.</p>
Total:	<p>Potentially up to £2bn per annum. This figure is for illustrative purposes only. It is not considered robust enough for inclusion in the total figure for monetised benefits.</p> <p>Overall, non-monetised benefits are expected to exceed costs.</p>
Climate Change	<p>Benefits have not been monetised here.</p> <p>Legislative climate change targets provide the following key benefits:</p> <ul style="list-style-type: none"> • provide greater clarity and predictability for industry to plan effectively for, and invest in, a low-carbon economy; • ensure Wales is positioned to take advantage of the opportunities (in particular for jobs and growth) associated with the transition and support the drive for green growth • strengthen Wales' leadership internationally to help raise the ambition and urgency of collective action to tackle climate change and reduce climate impacts.

Total:	Benefits not monetised £0.0m (PV over 10 years)
Minimum Charge on all carrier bag types	Benefits to Retailers: £37.66 PV Benefits to Wholesalers: £0.08m PV Increase in Charitable Donations: £66.76m PV Increase in Tax Revenue: £19.25m PV
Total:	£123.75m (Present Value over 10 years)
Application of Carrier Bag Charges to a good cause	Benefit to Environmental Charities: £3.92m PV Benefits to Non-environmental Charities: £4.79m PV
Total:	£8.71m (Present Value over 10 years)
Collection and Disposal of Waste	<u>Waste Management Business</u> Materials revenue: £70.74m PV Avoided Landfill Tax ¹⁰¹ : £172.46m PV <u>Sewerage Authorities</u> Avoided Water Treatment Costs: £7.08m PV Potential creation of 3,600 jobs across municipal, commercial and industrial sectors, 2,600 jobs in the municipal sector alone.
Total:	£77.82m (Present Value over 10 years)
Fisheries for Shellfish	Benefits have not been monetised.

¹⁰¹ Excluded from net costs calculation

	<p>However, the Welsh Ministers will have the ability to intercede if a fishery is found to be damaging a European Marine Site, thereby reducing the risk of incurring infraction costs from such an incident. The Welsh Ministers confidence to award longer tenures for fisheries will be stronger.</p> <p>Investment in the industry will have greater confidence due to longer tenures being granted leading to growth in the sector and increased economic value.</p>
Total:	£0m (PV over 10 years)
Marine Licensing	<p>NRW will be able to achieve the objective of greater cost recovery for costs incurred in undertaking its functions under the Marine Licensing regime. This means a benefit to NRW as a result of transferring costs to the users or the Marine Licensing regime.</p> <p><u>Cost Savings to NRW (compared to baseline/Option 1) over 10 years</u> Pre-application: £385,460 Variations: £96,250 Revoke and Transfer:£440-£660 Monitoring, discharge, of conditions and compliance (£): £274,960</p> <p>Total: £757,330</p> <p>NRW will also be able to offer an enhanced service, particular at the pre-application phase which will allow a more streamlined determination of the full application, which could result in less need for variation and post content monitoring also. Overall this means benefits are likely to outweigh costs.</p>
Total:	£0.65m (Present Value over 10 years)
Flood Risk Management Wales Committee (FRMW)	<p>NRW have estimated that staff (excluding the secretariat role) spend 1280 hours per year in preparing, providing papers for and attending FRMW committees. This has been estimated at approximately £40,000 per year. Although some of this work will remain with NRW, especially in preparing similar papers for their own</p>

	board, there will be cost savings to NRW in time spent consulting with the committee.
Total:	£0m (PV over 10 years)
Internal Drainage Boards	<p><u>Advertising Requirements:</u> Cost saving from not advertising in local newspapers of around £200 per advert. Adverts reach a wider audience.</p> <p><u>Local Authority Appeals Mechanism:</u> Offers local authorities a degree of protection against unfair levies.</p>
Total:	£200 per advert
Land Drainage	<p><u>Cost savings:</u></p> <p>The Welsh Government would save around 30 days per case in administrative time, resulting in savings amounting to £4,800 per case, or £2,400 per annum on average.</p> <p>Total: £9,377 per annum.</p> <p>In addition to cost savings, the changes are likely to lead to a more successful resolution of Agricultural Land Tribunals (ALT) orders and remedies for land owners whose land has suffered from poor drainage. This can lead to environmental benefits arising from the successful free flow of drainage systems.</p>
Total:	£0.08m (PV over 10 years)
TOTAL FINANCIAL BENEFIT (for the Bill)	£211.01m (PV over 10 years)

Table 43: Summary table of monetised environmental benefits for Bill as a whole

Policy Area	Benefits
Minimum Charge on all carrier bag types	Environmental Impact: £8.27m PV
Collection and Disposal of Waste	Monetised Environmental Costs: £139.77m PV
TOTAL ENVIRONMENTAL BENEFIT (for the Bill)	£148.04 (PV over 10 years)¹⁰²

The total monetised benefit for the Bill as a whole is therefore £359.05m.

¹⁰² Note that this figure only includes monetised benefits. Inclusion of non-monetised benefits would be anticipated to greatly increase this figure.

Chapter 7: Specific Impacts

Specific Impacts

822. A series of impact assessments on the policy areas contained within the Bill have been completed as part of this Regulatory Impact Assessment.
823. The Welsh Government is bound by the Equality Act 2010, and the Wales-specific Equality Duties Regulations, the Human Rights Act 1998 and the European Convention on Human Rights.
824. The Rights of Children and Young People Measure 2011 requires the Welsh Ministers to give due regard to the United Nation Convention on the Rights of the Child in the development of all Ministerial functions
825. The Welsh Government's Welsh Language Scheme requires that an assessment of the impacts of the Bill on the Welsh language be carried out.

Findings

826. The findings of the impact assessments are largely related to potential rather than definite impacts. Each of the following assessments found that there are no specific negative impacts as a result of the Bill and that any potential impacts are likely to be positive. The following provides a summary for each impact assessment, which is set out for each of the policy areas included in the Bill.
827. Full impact assessments are provided on the Welsh Government Environment Bill webpages at:
<http://gov.wales/topics/environmentcountryside/consmanagement/natural-resources-management/environment-bill/?lang=en>

Equality Impact Assessment

828. The proposals in the Bill, by their very nature, have no positive or negative impacts identified in respect of equality. The following provides a summary of the assessment for each of the policy areas in the Bill.

Sustainable Management of Natural Resources

829. There is currently a limited consistent and robust evidence base on our natural resources. This is something the Environment Bill is seeking to address, particularly through the publication of the SoNaRR.
830. It is intended that the information in SoNaRR will be used to inform the production of the NNRP and area statements. It will provide the information needed for the Welsh Ministers to set priorities for action at the national level, as well as help to inform the selection of appropriate areas for the implementation of these priorities by NRW at the local level, for

example, taking consideration of specific local issues in areas of deprivation.

831. An outcome of the sustainable management of natural resources will mean that benefits are provided for local communities equally, by encouraging decision makers to consider the economic, social and environmental impacts of decisions on current and future generations. The intention is to create a resilient natural environment, so that natural resources will continue to provide for example clean water, good air quality, climate regulation and crop pollination.
832. The principles of sustainable management of natural resources under section 4 of the Bill include the need to promote and engage in collaboration and co-operation and to make appropriate arrangements for public participation in decision-making. In applying the principles, NRW and the Welsh Ministers must therefore engage with all relevant sectors of society, including consulting with them. This will also ensure that the principles reflect the public participation requirements of the Aarhus Convention.
833. It is expected that this will create a positive impact on equality by broadening access to participation and improved decision making, which will include representation of a wider group base within society. This will also be integrated into the main elements of Part 1 of the Bill relating to evidence, policy and delivery.

Climate Change

834. The provisions in this Bill place a long-term statutory target to reduce Wales' emissions by at least 80% lower than the baseline by the year 2050 together with a requirement for the Welsh Ministers to set interim targets and carbon budgets to achieve this target. The framework itself does not raise issues of equality and the Welsh Government is content that the findings in the original equality impact assessment for the original Climate Change Strategy are still applicable.
835. However, when the Welsh Government sets any new proposals and policies for meeting carbon budgets, they would be subject to an engagement process and a full and detailed assessment. This would include an equality assessment in line with the requirements under the Well-being of Future Generations (Wales) Act 2015.

Charges for Carrier Bags

836. The findings in the original equality impact assessment for the original single use carrier bags charge are still applicable. However this position will be reconsidered once the review of the single use carrier bags charge is completed. The evidence obtained from this review will be used to update the equality impact assessment and inform future policy direction.

This includes the options available to the Welsh Ministers in terms of making regulations to address a rise in demand for other types of bags.

837. Any decision to use the extended primary powers to make regulations would also be subject to an extensive engagement process and full and detailed Regulatory Impact Assessment would be undertaken at that time.

Collection and Disposal of Waste

838. It is intended that the requirements will be introduced via subordinate legislation and therefore as the Bill provisions provide enabling powers to the Welsh Ministers only, they do not directly raise issues of equality. At this time, the Welsh Government is content that the findings in the equality impact assessment for the Wales waste strategy Towards Zero Waste are still applicable. Any decision to make regulations under the Bill would be subject to an extensive engagement process and full and detailed Regulatory Impact Assessment at that time.

Fisheries for Shellfish

839. The Bill makes amendments to insert new enabling powers into the Sea Fisheries (Shellfish) Act 1967. As the Bill provides enabling powers for the Welsh Ministers only, the Bill provisions themselves do not raise issues of equality. However, further equality analysis of the exercise of those powers will be undertaken by the Welsh Government when the subordinate legislation is introduced.

Marine Licensing

840. No impacts on equality issues were identified on completion of the impact assessment in relation to the marine licensing provisions

Flood and Coastal Erosion Committee

841. This policy will see the establishment of the Flood and Coastal Erosion Committee which will provide advice to the Welsh Ministers on flooding from all sources and coastal erosion across Wales.
842. The benefits and impacts will apply equally to all people across Wales and capture risk from rivers, surface water, ordinary watercourses, reservoirs and the sea as well as coastal erosion. In providing such advice, it can look at the wider risks and multiple benefits across larger spatial areas, associated with river catchments and/or coastal areas. The Welsh Government can also ensure that flood risk management across Wales is aligned with the National Strategy for Flood and Coastal Erosion Risk Management, including reducing risk from flooding and raising awareness. This should therefore have a positive impact on people at risk from flooding.

Land Drainage

843. The purpose of the policy is to clarify the powers of the Welsh Ministers to enforce remedial drainage works as directed by an ALT order helping to restore land to its economic function, therefore is neutral from an equality perspective. There may be a positive impact on Human Rights as the provision will help to resolve cases more quickly, preventing long, protracted disputes. No impacts on equality issues were identified on completion of the impact assessment for the provisions in relation to IDBs.

Children's Rights Impact Assessment

844. No negative impacts on children were identified for any of the policy areas contained in the Bill. The following potential positive impacts were identified:

Sustainable Management of Natural Resources

845. An outcome of the sustainable management of natural resources will lead to benefits for local communities of all ages, by encouraging decision makers to consider the economic, social and environmental impacts of decisions on current and future generations, including young people. Better decision-making and managing our natural resources sustainably has the potential to have a positive impact on groups who are most vulnerable, including children.

Climate Change

846. As a result of carbon emission to date, a certain amount of global climate change is now unavoidable over the next 30-40 years.

847. Whilst climate change is a global phenomenon, the impacts of climate change are also felt at a local level, by vulnerable people such as children who have limited ability to adapt to extreme weather events and climate change e.g. those living in deprivation, the less educated and those who are physically or mentally ill.

848. Climate change has a disproportionate effect on those most vulnerable, as those who contribute least to the problem through emissions, are ones that may be most affected by climate impacts and may also have to pay most to address the issue - people on low incomes may be disproportionately affected by costly policy interventions and lack the safety net of resources to cushion the direct effects of climate change.

849. The impacts of climate change can affect health, nutrition, education as well as adding pressures on households, such as rising food and energy prices. How much emissions are reduced and adaptation is delivered will determine the future climate risks for children.

850. The Welsh Government's aim is to set out a clear pathway within the context of its existing UK and EU obligations for at least an 80%

reduction in emissions by 2050. A clear pathway for decarbonisation not only provides transparency but will also have a positive impact on the environment, people, the economy and communities. For instance work on energy efficiency not only helps to reduce emissions but also ensures people are living in warm homes, whilst also providing local jobs and skills for young people. Work on pollution and prevention control helps to ensure that we have access to clean and accessible water, air quality and green spaces, which has health benefits for children. Whilst work on green growth provides investment and opportunities for decarbonisation, which will shape the future skills set needed by children as they enter the workforce.

851. If emissions are reduced and resilience to climate change increased, it will not only help to ensure delivery on the targets but help to provide wider benefits to current and future generations, whilst limiting the impacts of climate change on those future generations.
852. When the Welsh Government sets any new proposals and policies for meeting carbon budgets, they would be subject to an engagement process and full and detailed assessments which would include an Children's Rights Impact Assessment.

Charges for Carrier Bags

853. Allowing the Welsh Ministers to place charges on other types of re-useable carrier bags in order to reduce demand for these types of carrier bags and encourage their re-use can enable a wider environmental awareness through an overall reduction in the demand for re-usable carrier bags by consumers. It can also change in consumer behaviour towards re-use of the bags they already own. The impacts would affect all children in a positive way through environmental improvement.
854. The second proposal places a duty on sellers to apply the net proceeds of the charge on carrier bags to good causes and removes the limitation that is currently in paragraph 4A of the Climate Change Act 2008, so that sellers would not be limited to applying the net proceeds of the charge to environmental good causes only. This proposal ensures that all sellers must donate their net proceeds to good causes and only those sellers not currently donating the net proceeds of the charge would be affected. As such, an indirect effect of the proposal would be an increase in net proceeds being donated to good causes and as a result some children may benefit from the types of good causes who could then receive money from the net proceeds of charge.

Collection and Disposal of Waste

855. The policy proposals demonstrate positive impacts under the UN Convention on the Rights of the Child (UNCRC), by supporting the more sustainable management of waste and associated benefits. It is likely they will contribute to the improvement of those rights within Wales and globally.

The overall benefits of the policy proposal will be to improve resource use which will benefit the overall environment in Wales, which will give greater effect to a clean environment so that children and young people will stay healthy.

856. Children are already informed of the broader principles of sustainable waste management (i.e. reduce, re-use, recycle) within the national curriculum. It is not considered necessary or appropriate to inform children of the legislation in place to help achieve those outcomes.

Marine Licensing

857. The Marine Licence regime provides the framework for authorising developments in Welsh waters. In determining an application for a marine licence (including the terms on which it is to be granted and what conditions, if any, are to be attached to it), the appropriate licensing authority must have regard to—

- (a) the need to **protect the environment**,
 - (b) the need to **protect human health**,
 - (c) the need to **prevent interference with legitimate uses of the sea**,
- and such other matters as the authority thinks relevant.

858. Supporting the more sustainable management of the marine environment is likely to make a positive contribution to UNCRC. A healthy marine environment contributes to wellbeing of the children of Wales. An effective marine licensing regime will contribute to the achievement of a healthy marine environment. Furthermore, the overall benefits of the policy proposal will be to contribute to the sustainable development of the marine environment in Wales and to specifically consider the need to protect human health in permitting future development, which will give greater effect to a clean environment so that children can develop healthily.

Fisheries for Shellfish

859. The policy proposals support the aims of the UNCRC. By demonstrating positive impacts, the sustainable and economic shellfishery opportunities in Wales are likely to contribute to the improvement of those rights within Wales and globally. For example, the overall benefits of the policy proposal will be to increase the provision of nutritious food and therefore increase the chances of healthy development of children in Wales.

Flood and Coastal Erosion Committee

860. Through ensuring that flood risk management in Wales is aligned with the National Strategy for Flood and Coastal Erosion Risk Management, which aims to reduce risk from flooding and raise awareness, the proposed amendment will be applied equally to all those with protected characteristics including to children and young people should therefore have a positive impact.

Privacy Impact Assessment

861. The screening tool assessment has been applied to each of the provisions in the Bill to identify whether the proposals are likely to have an impact on privacy. No impacts were identified for the Bill's provisions; therefore, no further assessment was needed for these policy areas. More detailed analysis was carried out for the application of net proceeds provision and this is set out below.

Charges for Carrier Bags

862. Schedule 6 to the Climate Change Act 2008, as amended by the Waste (Wales) Measure 2010, provides that the Welsh Ministers may, by regulations, require sellers to apply the net proceeds of the carrier bag charge to purposes that will benefit the environment.

863. This power has not currently been exercised as the preferred policy has been to enlist the co-operation of the sellers by encouraging them to apply the net proceeds to good causes through a voluntary agreement. Sellers have been invited to sign up to guiding principles in the Welsh Government's voluntary agreement but are still legally free to apply the proceeds as they see fit.

864. The voluntary agreement consists of an online form that is completed by the retailer which is sent to an email account for the single use carrier bag charge. This information is then processed and placed into a spreadsheet.

865. The form asks the retailer to confirm:

- if they agree to be a signatory to the voluntary code to pass on their net proceeds (tick box);
- if they do not wish to receive any communication from the Welsh Government on the single use carrier bag charge (tick box);
- if they would prefer their company name to be kept confidential and not shared on the internet or in a report (tick box).

866. The form also asks the retailer to detail the contact name, business name and contact details. Individual information is not shared with 3rd parties if the retailer has indicated that they wish their information to be kept confidential. The processing of this personal data is currently compliant with the Data Protection Act and on implementation of the Bill would be unlikely to change or in fact continue. Therefore we do not anticipate that there would be impact on privacy as a result of Bill.

Welsh Language Impact Assessment

867. No negative impacts on the Welsh language were identified for any of the policy areas in the Bill. The following potential positive impacts were identified:

Sustainable Management of Natural Resources

868. Whilst the Bill has not been specifically designed to have a direct impact on the Welsh language, four positive impacts have been identified. These are:

- The Bill will support the implementation of the six goals set out in the Well-being of Future Generations (Wales) Act 2015. This includes the goal for a “Wales of vibrant culture and thriving Welsh language”.
- The NNRP will set out the priorities and opportunities for the sustainable use of natural resources in Wales leading to more resilient ecosystems. This will benefit communities across Wales leading to long term prosperity, social benefit and health and well-being. In particular the Bill will provide the opportunity for primary industries such as agriculture, energy and water to become more sustainable. 29.5% of those employed in the agriculture, energy and water industries are Welsh speakers.
- Area statements will facilitate a subnational approach to Natural Resource Management (NRM) and provide for targeted solutions based on economic, social and environmental profile of a given area. This should lead to more resilient Welsh language communities that benefit from the economic, social and environmental opportunities identified which, in turn, could have a positive impact on the outward migration of fluent Welsh speakers from some Welsh speaking heartlands.
- NRM will support climate change adaption and mitigation leading to more resilient communities which will benefit Welsh language communities in the same way as identified in impact 3.

Climate Change

869. The Bill allows for the creation of an advisory body in Wales, the intention of which is to provide expert, independent advice on climate change. This will provide Welsh Ministers with powers to create an independent body should it be necessary in the future, and thus, help to future proof the provisions in the Bill. As a result, positive effects are anticipated with respects to Welsh language. For example, a Welsh specific advisory body would focus its engagement specifically to Wales, and allow for engagement in the Welsh language, as and when required.

Rural Proofing Impact Assessment

870. As part of the assessment undertaken to analyse impacts on rural areas, the following policy areas were identified as having potential implications.

Sustainable Management of Natural Resources

871. The Bill sets out an approach to prioritise natural resource opportunities and to ensure we have the evidence needed to better inform the shape and direction of sustainable economic growth and development. The Bill also intends to support all communities to be resilient and sustainable for the benefit of wildlife and rural areas. Working with other bodies, NRW will lead

the approach to planning natural resources at a local level through the publication of area statements. This includes rural areas and is likely to therefore enable opportunities and challenges to be considered.

872. The Bill will enable NRW to develop new ways of working to help maximise long term benefit from our natural resources including environmental services such as food and timber, as well as flood and water control, filtration of pollution. This could potentially enable farmers and land owners to generate an income for the management of ecosystem services and provide a source of profitability.

873. The principle under section 4 of the Bill related to public participation in decision making will ensure that NRW and the Welsh Ministers must apply the principles and engage with all relevant sectors of society.

It is expected that this will create a positive impact on the rural demographic by broadening access to participation and improved decision making, which will include representation of a wider group base within society including those areas with rural issues.

Climate change

874. The provisions in this Bill place a long-term statutory target to reduce Wales's emissions together with a requirement for Welsh Ministers to set interim targets and carbon budgets to achieve this target. The framework itself is considered not to raise issues on rural areas but will support action to tackle the challenge of climate change, which has significant risks to rural as well as urban areas. In addition, when developing proposals and policies to meet the carbon budgets, they would be subject to an engagement process and full and detailed assessment, which would include an assessment against rural proofing.

Collection and Disposal of Waste

875. Householders in rural Wales already benefit from access to a good range of recycling services. The proposal requiring material to be segregated by the waste producer is intended to ensure that waste collection companies have greater volumes of segregated materials available for collection, thereby increasing the economic viability of operating separate collection services. The requirement to increase the range materials to be separately collected will ensure that a more comprehensive system of recycle collection will be available to waste producers in rural communities.

876. This is likely to result in an increase in rural infrastructure, for example material processing facilities and material collection services.

877. The proposals may result in a small localised increase in commercial waste material facilities, for example depots for collected recyclable materials. However, overall the proposals are expected to significantly reduce reliance on landfill through the provision of alternate forms of waste management

such as recycling. The sustainability assessment post adoption statement for the Wales Waste Strategy “Towards Zero Waste”¹⁰³ concluded that increasing recycling (over landfill) will reduce landtake and associated environmental impacts arising from landfill.

878. Research commissioned by the Welsh Government predicts that though many businesses are likely to accrue savings, some businesses may incur an increase in the cost of their waste collection services. The research is summarised in the main regulatory impact assessment. It suggests that businesses producing smaller amounts of waste are more likely to see an increase in their annual waste collection costs. It predicted that the absolute increase in costs could exceed 0.5% of turnover for smallest businesses but would still be likely to be below 1% of business turnover.
879. It may not be possible to ensure that the proposals are cost neutral or beneficial to all producers of business waste. However, as part of the development of Regulations under the powers conferred on the Welsh Ministers by the Bill, the Welsh Government will be developing support and guidance to support the proposals and to mitigate negative impacts on those adversely impacted.

Fisheries for Shellfish

880. The proposals are designed to increase investment, and the confidence of the investor, in shellfisheries in Welsh waters. This should lead to an increase in the local economy and potentially the creation of jobs in both rural and urban areas.

Flood Risk Management Wales Committee

881. The Welsh Government will take a risk based approach to managing the risks from flooding and coastal erosion, rather than on a location basis, therefore work and investment is not specific to either rural or urban areas.
882. This policy will therefore have no negative impact on rural areas.

Land Drainage

883. The provision for power of entry may benefit individual farming and business units by ensuring a remedy through to ATL which will result in land being adequately drained and restored to original farming or business use.
884. The aim of the provision in relation to IDBs and their advertising requirements is for a more cost effective and flexible means of advertising to ensure the messages are delivered efficiently and effectively to rural

¹⁰³

http://wales.gov.uk/topics/environmentcountryside/epq/waste_recycling/publication/towardszero/?lang=en

areas through various types of advertising, e.g. digital, websites, social media, parish boards etc.

885. Enabling the Welsh Ministers to make regulations relating to drainage rate charges will ensure that the valuation method to be used is accurate. This will also allow those methods determined by regulations to be amended in the future, as appropriate, thus, assuring a level of flexibility in the process.

Chapter 8: Competition Assessment

886. The competition assessment filter test asks whether the policy provisions will directly or indirectly limit the number or range of suppliers; limit the ability of suppliers to compete; or reduce suppliers' incentives to compete vigorously.
887. The competition filter test has been completed for each policy areas in the legislation.

Sustainable Management of Natural Resources

888. Information provided by respondents to the White Paper has been taken into account. It should be noted that there were few comments on this area and consequently few competition objections to the proposals. The evidence gathered suggests that taken as a whole, the Natural Resource Management provisions are unlikely to have a negative impact on competition because any new legislation or policy will apply equally to all existing and new businesses. Indeed, the combined effect of the provisions is expected to impact positively on competition. Some impacts can be attributed to specific policy areas, while others may result from the Environment Bill more generally.

Climate Change

889. No effects on competition have been identified as a result of the provisions in relation to climate change.

Charges for Carrier Bags

890. As has been identified in the Regulatory Impact Assessment, the options that have been outlined in respect of extending the Welsh Ministers' regulation making powers to enable them to set a minimum charge for other types of carrier bags in addition to single use carrier bags (SUCB), will have an impact on bag manufactures as their profits fall. However, this impact is likely to be minimal since there are relatively few of these producers situated in Wales, and these costs only make up a small proportion of their overall revenue. The analysis under these options also shows that the increase in retailer revenues and the impact on wholesalers varies from option to option. However, it is not anticipated that this would have a significant competition impact, as it would be unlikely to affect the range of suppliers, limit their ability to compete, or reduce their incentives to compete.
891. In relation to the provision to extend the application of net proceeds to any good cause and the options that have been outlined under this provision, it is anticipated that as some retailers keep the revenues raised from carrier bag charges as profits, any requirement for retailers to donate to good causes may impact on their profits. As the analysis in the Regulatory Impact Assessment shows, some potential options are expected to lead to

an increase in retailer revenue donated to charities. However, this is only estimated to be an increase of £8.7m (discounted) over 10 years. It is felt that this is not a significant enough sum, when spread across all retailers, to impact upon competition. Therefore as with the first provision, it is not currently anticipated that this proposal would have any significant competition impact, as it would be unlikely to affect the range of suppliers, limit their ability to compete, or reduce their incentives to compete.

892. For this reason, a full competition assessment has not been undertaken at this stage.

Collection and Disposal of Waste

893. The Bill is intended to provide the Welsh Ministers with the powers to make secondary legislation and will not in itself result in any impact on competition. The following section outlines the potential impact on competition in the event that the powers are used.

894. The provisions are expected to increase the waste collection costs of some business waste producers in Wales. In percentage terms, the largest increase in waste collection costs are expected to be incurred by those businesses producing relatively small volumes of waste.

895. In addition, there is a potential impact on the competitiveness of Welsh businesses relative to businesses in England, with some Welsh businesses expected to experience an increase in waste collection costs that will not be incurred by businesses operating in England. However, the reverse is also true with some Welsh businesses expected to experience a reduction in waste collection costs as a result of the proposals. As set out in the RIA, the actual change in each business's waste collection costs will depend upon the waste collection operators/services in their area, the contract that each individual business is able to negotiate and their ability to make improvements in resource efficiency.

896. The new requirements may restrict the ability of waste collection businesses in Wales to choose the range and/or quality of the services they offer. Those businesses that don't offer recycling services may have to invest in additional infrastructure or face losing market share. This could affect market structure in Wales.

897. A ban on the disposal of food waste to sewers will restrict the market for food waste disposal units. As noted in the RIA, discussions with manufacturers suggest that the sale of these units in Wales represents a relatively small part of their businesses and as such any adverse impact is expected to be limited.

898. Any subordinate legislation brought forward under the powers conferred on the Welsh Ministers will be subject to further detailed regulatory impact assessment. As part of the process the Welsh Government will further

assess the impact of the proposals to ensure that no significant detrimental effect on competition results from the implementation of the proposals.

Marine Licensing

899. No effects on competition have been identified as a result of the provisions for marine licensing.
900. The changes will be applied across the board and no specific sector or new or existing users of the licensing system will be affected unfairly. The marine licensing system covers a wide range of sectors and firms and fees will be applied in the same way across all sectors. These changes will result in a level playing field for users of the system.
901. The significant new change is the introduction of pre-application charges. However, this is an optional service and again is available to all potential applicants, but is likely to be only used for larger scale projects. The introduction of subsistence fees will level of the playing field for all projects, as currently monitoring costs for EIA projects are able to be recouped, but not non EIA.

Fisheries for Shellfish

902. No effects on competition have been identified as a result of the provisions in relation to shellfisheries management.

Flood Risk Management Wales Committee

903. No impacts on competition have been identified as a result of this provision. This provision will form a committee to oversee flood and coastal erosion risk management in Wales and provide advice to the Welsh Ministers on all sources of flooding. There will be no statutory duties placed upon the Risk Management Authorities.

Land Drainage

904. No effects on competition have been identified as a result of the provisions in relation to land drainage.

Chapter 9: Post Implementation Review

Sustainable Management on Natural Resources

905. In evaluating the provisions introduced through the new legislation, the following will be a useful guide to success:
- The tools the legislation introduces are being used successfully, in conjunction with existing delivery measures, to provide increased certainty and transparency in implementing Welsh Government's policies for natural resources.
 - The net environmental, social and economic benefits of implementing the proposals justify the resource allocated to them, i.e. they are cost effective, and there is no evidence that this resource could have reasonably been used in a different way to produce superior results more efficiently.
 - Development in the environment and exploitation of its resources continues in a sustainable way without the negative effects on the environment that are currently occurring and that would continue to occur if changes were not made.
 - The provisions are perceived as being implemented fairly and constructively by the majority of those involved in the environment.
906. Post-implementation review will be facilitated through ongoing monitoring and assessment activities and processes, which have been built into SoNaRR, NNRP and area statements.
907. These three delivery mechanisms create an iterative process by feeding into one another. SoNaRR will provide the evidence base upon which the NNRP will identify key priorities and opportunities for the sustainable management of natural resources, which will be delivered at an appropriate scale through the publication of area statements. Area statements will gather local evidence, which in turn can assist in feeding back into SoNaRR and will ultimately provide a measure of the progress being made in the sustainable management of our natural resources. The Bill enables the Welsh Ministers to review the NNRP and publish a new one at any time and sets out the Welsh Ministers must also review the NNRP after each Assembly election.
908. A further example of when there would be a review of NRM Framework would be if the Welsh Ministers review their well-being objectives, as set under the Well-being of Future Generations (Wales) Act 2015. It is expected that this would prompt a review of NNRP and any changes to NNRP would prompt a review of the area statements.

Climate Change

909. The Bill requires the Welsh Government and the advisory body regularly review the progress being made towards achieving the targets and

budgets that it establishes. The Bill requires that the Welsh Ministers lay before the National Assembly:

- A final statement for each five year budgetary period (within two years of the end of the budgetary period) providing information on Welsh emissions, Welsh removals, amounts carried forward or back from one budgetary period to another and on the final amount of the net Welsh emissions account.
- If the net Welsh emissions account exceeds the carbon budget for that period, the Welsh Ministers must report to the National Assembly on proposals and policies to compensate for dealing with this excess in later budgetary periods.
- In relation to each target set, within 2 years thereafter, a statement providing information on the total amount of Welsh emissions, Welsh removals, net Welsh emissions account and the total amount of carbon units credited or debited to the account. The Welsh Ministers must state why the target has or has not been met.

910. The Welsh Ministers must publish a report setting out their proposals and policies for meeting each carbon budget.
911. The advisory body must, in relation to each budgetary period report to the Welsh Ministers on progress that is being made to meet the carbon budget, any interim targets and the 2050 target. This report must also be laid by the Welsh Ministers before the National Assembly.
912. Climate change will also be covered in the NNRP and therefore will be evaluated in line with the monitoring and assessment procedures provided under Part 1 of the Bill for NNRP.

Charges for Carrier Bags

913. The Welsh Government will conduct a post implementation review of the legislation, for those elements that are invoked through Regulations. It is envisaged that the review will assess the effectiveness of the policy in achieving its objectives of reducing the wasteful use of resources and adapting consumer behaviour as well as the requirement on sellers to donate the net proceeds of the charge to good causes.
914. The success criteria and timescale for the review will be determined within the Regulatory Impact Assessment that would be carried out when the Regulations are invoked.

Collection and Disposal of Waste

915. Post implementation review of the proposals will be an ongoing process. Subordinate legislation developed under powers conferred to the Welsh Ministers under the provisions of the Bill will be subject to further detailed Regulatory Impact Assessment. This will also set out details of the Welsh Government's post implementation monitoring arrangements and timescale for the review.

Fisheries for Shellfish

916. If the powers are used, the provisions will be reviewed and any changes proposed will be subject to public consultation. Any review will be undertaken by the Welsh Government, and will be triggered should the powers be used.

Marine Licensing

917. The fees to be charged as a result of these provisions will be subject to review on an annual basis, if considered necessary, and public consultation carried out, if changes are proposed. Any review will be undertaken by NRW, and will be subject to sign-off by the Welsh Ministers.

Flood and Coastal Erosion Committee

918. The Welsh Government plans to conduct a review of the legislation within three years of enactment.

919. The Welsh Government will undertake ongoing monitoring of the Committee and will report to the Welsh Ministers on the effectiveness of the committee formed through this legislation and its performance. The review will check whether the legislation is delivering the objectives and benefits that were expected.

Land Drainage

920. The Welsh Government plans to conduct a review of the legislation for IDBs, for those elements where it is sensible to do so, within three years of enactment. It will review the effectiveness of the land drainage access provisions, to consider improvements, where necessary, when sufficient cases have been referred to it in order to enable a considered evaluation of the provision to be carried out.

Annex 1

Explanatory Notes

ENVIRONMENT (WALES) BILL

EXPLANATORY NOTES

INTRODUCTION

1. These Explanatory Notes are for the Environment (Wales) Bill introduced into the National Assembly for Wales on 11.05.2015. They have been prepared by the Department for Natural Resources of the Welsh Government to assist the reader.
2. The Explanatory Notes should be read in conjunction with the Bill. They are not meant to be a comprehensive description of the Bill. Where an individual section of the Bill does not require any explanation or comment, none is given.

COMMENTARY ON SECTIONS

Part 1 – Sustainable management of natural resources

3. Part 1 of the Bill is concerned with the sustainable management of natural resources. It makes provisions for a new iterative process for the Welsh Ministers, Natural Resources Wales (NRW) and other public bodies to contribute to achieving the sustainable management of natural resources.
4. This Part defines natural resources, sustainable management of natural resources and the principles of sustainable management of natural resources.
5. Part 1 confers functions on the Welsh Ministers and on NRW to assist in the delivery of sustainable management of natural resources. The Welsh Ministers will be required to produce a national natural resources policy and NRW will be required to produce a state of natural resources report and area statements. This Part provides for the process and timeframe for the production of these documents and confers a function on public bodies (defined in the Bill) to provide assistance and/or information requested by NRW for the production of these documents. This Part also confers functions on the Welsh Ministers to implement the national natural resources policy and for NRW to implement an area statement.
6. This Part substitutes article 4 of the Natural Resources Body for Wales (Establishment) Order 2012, providing NRW with a new general purpose to pursue sustainable management of natural resources. This Part also amends existing functions of NRW to assist them in the delivery of their functions to achieve their new purpose and repeals NRW functions in relation to entering management agreements in the National Parks and Access to Countryside Act 1949, the Wildlife and Countryside Act 1981 and the Countryside Act 1968. This Part also replaces NRW's functions in the 1968 Act, in relation to experimental schemes. Part 1 confers on the Welsh Ministers a power, on application from NRW, to make regulations to allow for a limited suspension of legislative

requirements in order to facilitate an experimental scheme, which is necessary to contribute to sustainable management of natural resources.

7. Part 1 replaces section 40 of the Natural Environment and Rural Communities Act (NERC) 2006 for public authorities with functions in relation to Wales and replaces section 42 of the NERC Act 2006 in relation to the Welsh Ministers' duty to prepare a list of important living organisms and habitats for biodiversity in relation to Wales. It requires these public authorities in the proper exercise of their functions to seek to maintain and enhance biodiversity and in so doing promote the resilience of ecosystems.

Section 1 – Purpose

8. This section makes clear that the purpose of this Part is to promote the sustainable management of natural resources.

Section 2 – Natural resources

9. Section 2 defines natural resources for the purposes of Part 1 of the Bill.
10. The definition extends to all living organisms (biotic), excluding people, and non-living components and materials (abiotic) of the natural environment.
11. The definition is not limited to terrestrial natural resources; it also includes coastal and marine natural resources.
12. The definition lists examples of components of the natural environment and includes, for example, biological and geological resources, environmental media (air, water and soil) and also flow resources (such as tide, wind and solar).

Section 3 – Sustainable management of natural resources

13. This section defines “sustainable management of natural resources” for the purposes of Part 1 of the Bill. Section 4 describes how sustainable management of natural resources should be delivered, through the principles of sustainable management.
14. Subsection (1)(a) provides that sustainable management of natural resources is about using (or not using) natural resources (as defined in section 2) to promote the objective at subsection (2). An example of managing resource use is the amount, frequency and location of water abstraction from a river. To meet the objective at subsection (2) water is not abstracted at a rate faster than it can be replenished or in a manner that will have an adverse effect on the wider ecosystem and the other ecosystem benefits provided by the river. Water availability is assessed not only on the impact in the short term but over the long term and on the ability of the ecosystem to provide benefits for future generations.
15. Subsection (1)(b) and (c) clarifies that sustainable management of natural resources is also about taking, or not taking, action that promotes or hinders the achievement of the objective at subsection (2). This could include, for example, managing the impact of production activities on the health and functioning of ecosystems. The use of recycled materials, for example, can help to reduce the

rate at which natural resources are used in production activities, but that activity may also involve the emission of pollutants into the aquatic environment or the air, and therefore have a negative impact on the health of our ecosystems. Sustainable management includes taking action (or not taking action) to reduce potential negative impacts from activities so as to maintain and improve resilient ecosystems.

Subsection (2) provides that the objective of the sustainable management of natural resources is to maintain and enhance the resilience of ecosystems and the benefits they provide. A resilient ecosystem is healthy and functions in a way that is able to absorb disturbance and deliver benefits over the long-term. The key characteristics of a resilient ecosystem are described in section 4(i).

16. Maintaining and enhancing the resilience of ecosystems and the benefits they provide such as the provision of food and fibre helps to meet current and future social, economic and environmental needs and contribute to the achievement of all the seven well-being goals under section 4 of the Well-being of Future Generations (Wales) Act 2015.
17. The “benefits”, or services, provided by ecosystems are the tangible and intangible benefits obtained from ecosystems and natural resources and include:
 - a) Supporting services, for example nutrient cycling, oxygen production and soil formation. These are the services that are necessary for the production of all other services;
 - b) Provisioning services, for example food, fibre, fuel and water. These are the products obtained from ecosystems;
 - c) Regulating services, for example climate regulation, water purification and flood protection. These are the benefits obtained from the regulation of ecosystem processes; and
 - d) Cultural services, for example education, recreation, and aesthetic benefits. These are the non-material benefits people obtain from ecosystems.

Section 4 - Principles of sustainable management of natural resources

18. Section 4 establishes the principles that determine how the sustainable management of natural resources is to be delivered. The principles are complimentary and interlinked and are not listed in order of priority.
19. Paragraph (a) provides for an adaptive approach to decision-making. This involves generating new knowledge and seeking to reduce uncertainties, thereby allowing a decision-maker to anticipate and cater for change.
20. Paragraph (b) requires spatial scale to be considered. This includes considering the appropriate local, regional or national spatial level to address issues or to deliver opportunities. For example, linkages between ground water, surface water and rainfall within the area of a river catchment mean that impacts on any one of these can affect hydrological processes within the catchment and the benefits linked to these processes, such as clean water provision.
21. Paragraphs (c), (d) and (e) require working with appropriate sectors of society. Decisions should be made in consideration of the evidence and information gathered from relevant stakeholders and different sectors of society, including

for example, local communities and the public.. The term “evidence” in this context is not solely a reference to scientific evidence and would include local knowledge as well as empirical data and scientific evidence.

22. Paragraph (f) requires that benefits that are provided by our natural resources and ecosystems are identified and considered, as well as the intrinsic value of those ecosystems and resources, which is the value of natural resources and ecosystems for their own sake. All provisioning, supporting, regulating and cultural benefits (or services) should be considered, as appropriate. For example, in forestry management, in addition to taking into consideration the provision of timber, other services such as carbon storage, habitat provision or recreational activities are also considered. Woodlands require long term management that demands careful selection of species and location for tree planting such that a range of ecosystem services and benefits can be optimised over a generation or more.
23. Paragraph (g) requires short, medium and long term consequences to be considered, including the time lags and feedback times for ecosystems to respond to our interventions. For example, proposals to introduce a new wetland to help reduce diffuse pollution from farmland would have to factor in the time for the wetland to develop the necessary biophysical conditions to control the pollution, together with the variability of water flows over time into the design and monitoring of the wetlands.
24. Paragraph (h) requires the taking of actions which can avert serious or irreversible harm on ecosystems. This provides a preventive approach within the principles of sustainable management of natural resources.
25. Paragraph (i) requires that particular aspects of ecosystem resilience are considered. This list is not an exhaustive definition but identifies for the purpose of this Part, the key aspects of resilient ecosystems.

Section 5 - General purpose of Natural Resources Body for Wales

26. This section substitutes a new provision for article 4 of the Natural Resources Body for Wales (Establishment) Order 2012 (Establishment Order) so that the sustainable management of natural resources becomes the core purpose of the Natural Resources Body for Wales (Natural Resources Wales - NRW).
27. The Establishment Order established NRW as the environmental and conservation body in Wales and sets out its general functions. As originally drafted, article 4 of the Establishment Order set out the general purpose of NRW, which was to ensure that the environment and natural resources of Wales were sustainably maintained, enhanced and used for the benefit of the people, environment and economy of Wales today and in the future.
28. Article 4(1)(a), as substituted by section 5, now places a duty on NRW to pursue the achievement of sustainable management of natural resources in relation to Wales when exercising any of its functions. In complying with this duty NRW must pursue the objectives of sustainable management as set out in section 3 of the Bill.

29. Article 4(1)(b) requires that, in carrying out its functions, NRW must also apply the principles of sustainable management which are set out in section 4 of the Bill. The duties in article 4 only apply to the extent that they are consistent with the proper exercise of NRW's functions and therefore they do not conflict with or override any provisions in this Bill or any other legislation, which confer powers or duties on NRW.
30. An example of applying the principles to a function can be illustrated in the preparation of a state of the natural resources report (a requirement under section 8 of the Bill). In preparing the report NRW must apply the principles in section 4, which would include considering all relevant evidence and information that will be required to prepare the report, as well as engaging with relevant stakeholders who may have access to any relevant evidence. In addition, NRW would need to take into account the current variability of species and habitats within ecosystems, the ability of ecosystems to respond to changes or increased demands and be able to continue to provide services such as clean water, food, tourism and flood and disease control.
31. Section 5(3) makes consequential amendments to article 5 of the Establishment Order. Article 5 confers a power on the Welsh Ministers to give guidance about how NRW exercises its functions. Article 5(3) which provides that NRW must have regard to the guidance in discharging its functions is amended so that NRW must now have regard to the guidance in discharging its general purpose.
32. Section 5(4) amends the Establishment Order by repealing articles 5B and 5E. Article 5B requires that NRW must have regard to actual or possible ecological changes when carrying out their nature conservation functions. This requirement will now fall under the principles of sustainable management of natural resources as provided in section 4 of this Bill and therefore article 5B is no longer necessary.
33. Article 5E requires that NRW must have regard to the health and social well-being of individuals and communities as well as economic well-being. These requirements will be subsumed within the duties placed on NRW by the Well-being of Future Generations (Wales) Act 2015, so article 5E is no longer required.

Section 6 – Biodiversity and resilience of ecosystems duty

34. Section 6 places a duty on public authorities, as defined in subsection (6), to carry on their functions in a manner that maintains and enhances the biological diversity (referred to as biodiversity). All public bodies, statutory undertakers, Ministers of the Crown and other public office holders are required to apply the duty when they are carrying on any functions in Wales, or in relation to Wales. The judicial functions of courts and tribunals are not subject to the duty.
35. These public authorities will be required to comply with the duty in section 6 instead of the duty in section 40 of the NERC 2006.
36. Section 40 of the NERC Act 2006 requires all public authorities in England and Wales to have regard to conserving biodiversity when carrying out their functions. This means that they must consider any impacts on biodiversity.

37. Section 6(1) of the Bill requires that public authorities when carrying out all of their functions do so in a way that aims to improve and not reduce the variability of biological organisms and that in doing they must seek to further the resilience of ecosystems. Resilience is not defined but a number of key characteristics of resilience are contained in subsection (2).
38. Whilst public authorities are required to comply with the duty when exercising any functions, the duty does not override the proper exercise of those functions. This means that where the duty conflicts with any other legal obligations of the public authority, that public authority is not required to comply with the duty.
39. Section 6(2) of the Bill requires that in delivering the obligation under subsection (1), public authorities must consider diversity between and within ecosystems for example the diversity of species and habitats, the extent, state, connectivity of ecosystems and their ability to deal with and recover from unexpected events for example the impacts of climate change. The list in subsection (2) is not intended to be an exhaustive list of matters that must be taken into account as some matters may not be relevant to every situation. See also the notes for section 4.
40. Under section 6(4) of the Bill, the Welsh Ministers, government departments and Ministers of the Crown are under an additional duty to have particular regard to the 1992 Convention. This duty does not apply to the other public authorities as defined in subsection (5).
41. Section 6(5) requires that every three years, all public authorities must publish a report on how they have met their obligations under the biodiversity duty. Public authorities could include this report in any other reports that they are required to publish.
42. Subsection 6(6) lists the public authorities to which the duty in section 6(1) applies. This includes a wide range of bodies including for example local health boards, national health trusts and national park authorities.
43. Although section 6 only applies in relation to Wales, this does not mean that it is about biodiversity only in Wales. It applies to biodiversity in a global sense and requires public authorities to consider the effect of decisions taken, or activities carried out, within Wales insofar as those decisions or activities may have implications in relation to biodiversity outwith Wales. This might be illustrated by the example of a public authority in Wales which is considering whether to purchase products made from materials sourced from a tropical rainforest. The biodiversity implications of that purchasing decision would need to be considered by the public authority.

Section 7 – Biodiversity lists and duty to take steps to maintain and enhance

44. This section is similar to the duty in section 42 of the NERC Act 2006 which it replaces. It places a duty on the Welsh Ministers to publish, review and revise lists of living organisms and types of habitat in Wales, which they consider are of key significance to sustain and improve biodiversity in relation to Wales.

45. Before publishing, reviewing and revising the lists, the Welsh Ministers must consult NRW (subsections (2) and (4)).
46. This section also requires the Welsh Ministers to take, and encourage others to also take measures to sustain and improve the listed organisms and habitats (subsection (3)).
47. In producing the list or taking any measures to sustain and improve the listed organisms and habitats, the Welsh Minister must apply the principles of sustainable management of natural resources (as provided in section 4 of the Bill). The Welsh Ministers must therefore consider any appropriate evidence, for example as provided in the state of natural resources report (see section 7) and also engage with any relevant stakeholders (subsection (5)).
48. Section 7 needs to be read in conjunction with the consequential amendments made by Part 1 of Schedule 2.

Section 8 – Duty to prepare and publish state of natural resources report

49. In order to assist persons in achieving the sustainable management of natural resources in relation to Wales, section 8 requires NRW to publish a ‘state of natural resources report’. This report will provide a source of evidence that will be available for any person concerned with natural resources in relation to Wales. It will be of assistance to any person applying the principles of sustainable management of natural resources; taking account of all relevant evidence is part of the principle set out in section 4(de).
50. The report must contain NRW’s assessment of the current condition of natural resources in relation to Wales. The report must also include NRW’s assessment of the extent to which sustainable management of those natural resources is being achieved. For example, the status of ecosystems to deliver multiple benefits and their assessment on whether their current status will be able to adapt to demands to ensure the long-term delivery of these multiple benefits.
51. When preparing a report under this section, NRW will be guided by its general duties. This includes its general purpose as set out in article 4 of the Natural Resources Body for Wales (Establishment) Order 2012 (as replaced by section 5(2) of this Bill), which requires NRW to apply the principles of sustainable management of natural resources when exercising its functions.
52. Subsection (2) requires NRW to publish the first report within four months of this subsection coming into force. This subsection comes into force at the end of the period of two months starting with the day the Bill receives Royal Assent (see section 88(2)(a)).
53. Subsection (3) requires NRW to publish a new report before the end of the year preceding a year in which each subsequent ordinary general election of the National Assembly for Wales is to take place. Section 3 of the Government of Wales Act 2006 (as amended by section 1 of the Wales Act 2014) provides that an ordinary general election will take place in the fifth calendar year following that

in which the previous ordinary general election was held. The second state of natural resources report will therefore have to be published before the end of the calendar year 2020, with subsequent reports published every five years. The date is fixed by reference to the date set out in section 3 of the Government of Wales Act 2006. It is not dependent on the ordinary general election taking place on the specific date mentioned in that section and is not affected by any extraordinary general election that may take place pursuant to section 5 of that Act.

54. Subsection (4) requires NRW to provide a draft version of the state of natural resources report to the Welsh Ministers twelve months in advance of the final publication date as provided in subsection (3). This applies to each cycle of the publication of the state of natural resources reports, except for the publication of the first report under subsection (2).
55. The Welsh Ministers must have regard to the latest report when they are preparing a national natural resources policy (section 9(9)).

Section 9 - Duty to prepare, publish and implement natural resources policy

56. This section requires the Welsh Ministers to prepare, publish, implement and review a 'national natural resources policy' setting out their policies that will contribute to the sustainable management of natural resources (see section 3).
57. Subsection (2) requires the Welsh Ministers to set out in the policy what they consider to be the key priorities, risks and opportunities for the sustainable management of natural resources. Subsection (9) requires that the Welsh Ministers in preparing and revising the policy must have regard to the latest 'state of natural resources report'. In addition, the Welsh Ministers must apply the principles of sustainable management of natural resources when preparing or revising a 'national natural resources policy' (subsection (8)).
58. Subsection (2) also requires that the Welsh Ministers must include in the policy what they consider needs to be done in relation to climate change and biodiversity.
59. Subsection (4) requires the Welsh Ministers must also take all reasonable steps to implement the policy and also to encourage the implementation of the policy by other parties. In implementing the policy the Welsh Ministers must apply the principles of sustainable management of natural resources (see subsection (8)).
60. The policy is to be published and reviewed in accordance with the timings provided in this section. The first 'national natural resources policy' must be published within 10 months of this section coming into force. This section comes into force at the end of the period of two months starting with the day the Bill receives Royal Assent (see section 88(2)(a)).
61. The policy is an enduring document, in that the published policy will continue to apply unless and until a revised policy is published following a review. The Welsh Ministers may review the policy at any time but must review it following a general election of the National Assembly for Wales. The requirement to review following a general election applies whether it is an ordinary general

election (under section 3 of the Government of Wales Act 2006) or an extraordinary election (under section 5 of that Act). Following a review, the Welsh Ministers may choose to continue with the existing policy, or they can revise the policy as they see fit. If the policy is revised, the policy as revised must then be published (see subsection (7)).

Section 10 - Meaning of public body in sections 11 to 15

62. Section 10 lists certain persons as being a 'public body' for the purposes of sections 11 to 15 of the Bill.
63. Subsection (2) provides that the Welsh Ministers may, by regulations, amend the meaning of public body in section 10 by adding or removing a person from the list, or amending the description of such a person. Only bodies that have public functions may be added to the list (subsection (3)). If the body exercises both public and other functions, only their public functions can be subject to sections 11 to 14 of the Bill (subsection (4)). A Minister of the Crown can only be added to subsection (1) if the Secretary of State consents.
64. Prior to exercising this power, the Welsh Ministers must consult NRW, the person to be affected and any other person that they consider appropriate (subsection (5)).

Section 11 - Area Statements

65. Section 11 requires NRW to facilitate the implementation of the national natural resources policy by preparing, publishing and implementing 'area statements'. The number, siting, and geographical extent of the areas in relation to which statements are produced is determined by NRW, in accordance with what they consider to be most appropriate for facilitating the implementation of the policy.
66. When exercising any functions, NRW will be guided by its general duties. Of particular relevance to this section will be its general purpose as set out in article 4 of the Natural Resources Body for Wales (Establishment) Order 2012 (as replaced by section 5(2) of this Bill). This requires NRW to apply the principles of sustainable management of natural resources when exercising functions in relation to area statements. Subsection (2) clarifies subsection (1) to confirm that the statements may also be used by NRW for any other reason to assist in the exercise of any of their functions. For example, NRW may choose to use an area statement to outline how they will deliver their other functions relevant to that area, in addition to those functions related to the implementation of the national policy.
67. The form and content of the area statements are not prescribed; this is left to NRW to decide. However, subsection (3)(a)-(d) contains matters in general terms that must be included within each area statement they produce pursuant to this section.
68. Paragraph (a)(i), (ii) and (iii) requires each area statement to provide an explanation of why a statement has been prepared for an area by including information on the natural resources within that area and the benefits they

provide and by identifying priorities, risks and opportunities for the sustainable management of natural resources, which need to be addressed in that area.

69. Paragraph (b) requires NRW to include within an area statement how it has applied the principles of sustainable management of natural resources (as provided in section 4) in the preparation of an area statement. Paragraph (c) requires NRW to provide information on how it proposes to deliver its functions in that area to address the priorities, risks and opportunities identified in paragraph (a)(iii) and how it will apply the principles of sustainable management in doing so.
70. Paragraph (d) requires NRW to identify the public bodies, which it considers may be able to assist in relation to the identified priorities, risks and opportunities.
71. To assist NRW in complying with its obligation to produce and implement area statements, section 14 of this Bill provides NRW with power to require certain bodies (listed as 'public bodies' in section 10 of this Bill) to provide it with information and other assistance.
72. Subsection (4) requires NRW to take all reasonable steps to implement an area statement. They must also seek to promote implementation of the area statement by other persons. Persons who are listed as being a 'public body' in section 10 of this Bill are under a duty to provide such assistance to NRW as it requires in exercising functions under this section (see section 14). Those persons are also subject to the Welsh Ministers' power of direction under section 12, and must have regard to guidance issued to them pursuant to section 13.
73. Subsection (5) makes provision designed to ensure that area statements produced under subsection (1) continue to be effective in facilitating the implementation of the national policy. NRW are required to keep the statements under review, and are able to revise them at any time.
74. Subsection (6) requires NRW to consider rationalising the number of plans, strategies or other similar documents that operate in relation to the area to be covered by any given area statement. Before publishing a statement, NRW must consider whether:
 - a) any existing plan, strategy or other similar document (including another area statement) should be included within the statement. For example, NRW may seek to rationalise other plans that they prepare by incorporating them within an area statement; or
 - b) an area statement should be included within another plan, strategy or other similar document.

Section 12 - Welsh Ministers' directions to implement area statements

75. This section enables the Welsh Ministers to direct a public body (as listed in section 10 of the Bill), to take actions to address matters specified in an area statement under section 11(3). The Welsh Ministers must consider such actions to be reasonably practicable for the body to take. A direction may only require a

public body to do something that is within the scope of its functions (subsection (4)).

76. For example, where (pursuant to section 14) NRW have requested that a body take specified steps to assist it in the implementation of an area statement, the body subsequently fails to provide that assistance, a direction may be issued by the Welsh Ministers to the body. This could require the body to provide this assistance but only if the Welsh Ministers considers that it is reasonably practicable for the body to do so.
77. Subsection (2) requires the Welsh Ministers to consult the public body affected before issuing a direction under this section. A direction made under this section must be publicly available and can be varied or revoked by any subsequent direction (subsection (5)).
78. A public body must comply with a direction that has been issued under this section (subsection (3)). A direction under this section is enforceable by the Welsh Ministers applying to the High Court for a mandatory order. Failure to comply with a mandatory order is a potential contempt of court.

Section 13 - Guidance about implementing area statements

79. This section places a duty on public bodies (see section 10) to have regard to any guidance published by the Welsh Ministers in relation to the steps that should be taken to deal with the matters that have been identified in an area statement produced by NRW (under section 11) on specific priorities, risks and opportunities for sustainable management of natural resources that need to be addressed in that area.
80. Public bodies must have regard to this guidance in relation to how they exercise their functions in a way that can therefore contribute to the implementation of an area statement.

Section 14 - Duty of public bodies to provide information or other assistance to NRW

81. This section places a requirement on public bodies (see section 10) to provide NRW with information or other assistance, in the exercise of its functions, for the purpose of preparing and publishing a state of natural resources report (see section 8) and an area statement (see section 11), where NRW has requested this information or assistance.
82. The duty to supply information to NRW under this section does not apply if the public body is prohibited by law to from doing so, for example where access to information is restricted such as where data protection or national security requirements apply or where to provide information would contravene a right protected under human rights law.
83. The duty to assist NRW under this section does not apply if providing the assistance is incompatible with the body's duties or would result in adverse effects on the exercise of the body's functions (subsection (2)). For example,

NRW could not require another public body, which also has charitable status, to act in a manner which would be contrary to its charitable status.

84. Subsection (3) provides that the Future Generations Commissioner for Wales (established under the Well-being of Future Generations (Wales) Act 2015) is also subject to the duty to provide information and/or assistance under subsections (1) and (2), but only for the preparation and publication of the state of natural resources report (see section 8). The duty does not apply if the Commissioner is prohibited by law from providing the requested information, or if the Commissioner considers that providing the assistance is incompatible with the Commissioner's duties or would result in adverse effects on the exercise the Commissioner's functions.

Section 15 – Duty of NRW to provide information or other assistance to public bodies

85. This section requires NRW, on request from a public body (see section 10), to provide that body with information or other assistance, in the exercise of its functions, for the purposes of implementing an area statement.
86. However, NRW must not provide any information that it is prohibited from providing by law from doing so.
87. NRW is also not required to provide any other assistance requested by a public body where NRW considers that doing so would be incompatible with NRW's own duties or would otherwise have an adverse effect on the exercise of its functions (subsection (2)). For example this would apply where the provision of assistance would be incompatible with NRW's position as a regulator.

Section 16 – Power to enter into land management agreements

88. Section 16 enables NRW to enter into agreements with land owners or occupiers about how they manage their land. It replaces NRW's various powers to enter into land management agreements which are in section 39 of Wildlife and Countryside Act 1981 (the 1981 Act), sections 15 and 45 of the Countryside Act 1968 (the 1968 Act) and section 16 of the National Parks and Access to the Countryside Act 1949 (the 1949 Act).
89. However, these existing powers may only be exercised for the purposes of nature conservation, providing access to the countryside or enhancing the natural beauty of the countryside. Historically, land management agreements made under these provisions have been used to support the conservation and protection of designated sites such as Sites of Special Scientific Interest (SSSIs) (section 39 of the 1981 Act) or for ensuring the management of land as a nature reserve (section 16 of the 1949 Act).
90. NRW's powers to enter into land management agreements under regulation 16 of the Conservation of Habitats and Species Regulations 2010, has not been repealed and is unaffected by the provisions in this Bill.
91. Section 16 of this Bill extends the scope of the application of land management agreements so that they may be for any purpose within the remit of NRW which

includes any of the purposes for which land management agreements made under the repealed provisions could be used.

92. This includes agreements that further NRW's general duty to seek to deliver the sustainable management of natural resources as provided under section 5 of this Bill. The effect of section 5 on section 16 means that NRW will also need to apply the principles of the sustainable management of natural resources as specified in section 4 of this Bill.
93. Under section 16 NRW may enter into land management agreements with any person who has an interest in the land.
94. A person with an interest in the land is defined in subsection (3) and means those with a freehold or leasehold estate in land, a rent charge and those with rights such as the right to hunt or shoot game.
95. Section 16 does not impose a requirement on a person to enter into an agreement with NRW and they are voluntary arrangements. A section 16 land management agreement is a contract which may impose positive or negative obligations on the parties. The law of contract applies and agreements are enforceable under civil law.
96. For example the terms of a land management agreement may require a land owner to manage their land in a particular way, for which they may receive payments or other benefits in return.
97. Section 16(2) provides a non-exhaustive list of the type of terms and conditions that may be included in an agreement. Some examples of how the land may be used and restrictions on activities that may be undertaken are below:
 - On farmland, under the terms of an agreement, the land owner/occupier may be required not to cultivate a certain area of the land, or they may be asked not to cut down certain trees.
 - It may be a term of an agreement that a land owner/occupier must manage the flow of water through his or her land for the purposes of managing flood risk. For example the land owner/occupier may be required under the agreement to retain certain peat bogs or forestry coverage, therefore, restricting the use of the land but for the purpose of flood retention. This is an example of alternative measures that may be taken to manage flood risk by managing land in a way that retains water and attenuates flow to prevent flooding downstream. It replaces the traditional approach of using 'hard' structures which are built and maintained by NRW or a Local Authority and require regular inspection and maintenance to ensure they deliver a specific standard of protection to people and property in a flood event.
 - NRW may undertake management activities (i.e. harvesting woodland) on the land, or appoint someone else.
 - NRW may also use management agreements for managing land that falls within a SSSIs. The terms of an agreement may reflect the interests of any management scheme relating to a SSSI that may be made under section 28J

of the 1981 Act. A management scheme sets out measures to be taken for conserving and restoring a SSSI.

98. Section 16 needs to be read in conjunction with the consequential amendments made to the 1949 Act, the 1968 Act and the 1981 Act by Schedule 2, Part 1 of this Bill, which repeals those sections in relation to NRW. Transitional provisions in section 20 ensure that any existing agreements made by NRW are to be classed as agreements under this Bill.

Section 17 - Effect on successors in title of certain land management agreements

99. Section 17 sets out the circumstances in which the terms of a section 16 agreement may bind subsequent owners or tenants of the land. This section only applies to persons who acquire ownership of the land. It makes provision for circumstances where the title to the land is either registered or not registered. Most titles in land in England and Wales are registered with HM Land Registry but there is some land that remains unregistered in which case section 17(1) applies.
100. Section 17(1) applies to land that is not registered, the interest created under a management agreement may be registered as a Class D(ii) land charge in accordance with the Land Charges Act 1972 (c.61). The effect of registering the land charge is that the terms of a land management agreement are binding on any person who has acquired the land from a person with a qualifying interest. The person who acquires the land is the "successor" as defined in subsection (3) and "qualifying interest" is defined in subsection (3).
101. A successor will generally be any person who buys the freehold or leasehold interest (for a term of more than 7 years) in land. The buyer will not be bound by the terms of an agreement if the interest has not been registered as a Class D(ii) land charge.
102. Section 17(2) applies to registered land and the interest created under a section 16 land management agreement must be registered by way of a notice on the registered title in accordance with the Land Registration Act (c.9). If the interest is not registered as a notice the successor to the title will not be bound by the terms of the agreement.
103. Currently, an agreement made under section 39 of the 1981 Act binds subsequent/future owners or occupiers of the land whether it is registered or not.
104. Providing NRW either registers the interest under an agreement either as a notice on the register of title in the case of registered land or as a Class D(ii) land charge in the case of unregistered land they may enforce the terms of a land management agreement against any person who acquires a qualifying interest in the land.
105. Section 17 needs to be read in conjunction with the consequential amendments made by Part 1 of Schedule 2.

Section 18 - Application of Schedule 2 of the Forestry Act 1967 to land management agreements

106. This section enables NRW to enter into section 16 land management agreements with persons who may not fall within the definition of a person who has an interest in land (see section 16(3)). These are tenants for life and persons specified in Schedule 2 who have a power under section 5 of, and Schedule 2 to, the Forestry Act 1967 to enter into a forestry dedication covenant.
107. A forestry dedication covenant is an agreement that land may not be used otherwise than for growing timber and other forest products.

Section 19 - Effect of agreements on dedication of highway and grant of easement

108. The effect of this section is that where the public or a particular person has used a right of way across the land by virtue of a management agreement, that use of the land is not relevant when determining under law whether the land is treated as having been dedicated as a highway or whether an easement is treated as having been granted.

Section 20 - Transitional provisions

109. The section provides that any land management agreements made under the 1981 Act, the 1968 Act and the 1949 Act that has been made prior to this Bill coming into effect will be considered as land management agreements under section 16 of this Bill and sections 17 to 21 will apply to them.

Section 21 - Crown land

110. This section provides for who may enter into section 16 agreements on behalf of the Crown.
111. NRW may enter into a section 16 agreement in relation to Crown land but subsection (2) requires that the agreement must be approved by the appropriate authority. The appropriate authority depends on who the Crown land belongs to and is defined in subsection (4). "Crown land" is defined in subsection (3).
112. Subsection (5) provides that any question about who is the appropriate authority is referred to the Treasury.

Section 22 - Power to suspend statutory requirements for experimental schemes

113. Section 22 enables the Welsh Ministers, on the application of the NRW, to make regulations, which can temporarily suspend a specified statutory provision for which NRW is responsible for the purpose of enabling an experimental scheme as provided under section 23. These schemes will enable NRW to trial new approaches to help it achieve the sustainable management of natural resources and may include the development of or application of new methods, concepts or techniques, or the application or further development of existing methods, concepts or techniques.

114. Regulations under section 22(1) may confer an exemption from a requirement, relax a requirement, and require the person to whom the exemption or relaxation applies to comply with conditions stated in regulations. The suspension is limited to a period not exceeding three years (and which may be extended by a further period not exceeding three years). See section 22(4) and (5).
115. The regulations may also modify an enactment in a way the Welsh Ministers consider necessary for the enforcement of, or in consequence of the exemption, relaxation or conditions. Paragraphs (c) and (d) provide that when a statutory requirement is suspended or relaxed by regulations under subsection (1), conditions may be put in place which a party is required to comply with, in addition to enabling the Welsh Ministers to transfer existing enforcement measures from the existing enactment.
116. Regulations may only be made in relation to statutory requirements for which NRW is responsible. These requirements are defined in section 22(9). The requirement must be imposed by an enactment. NRW is responsible for the statutory requirement if it is a requirement:
- to comply with a standard set or requirement imposed by NRW;
 - to obtain a licence or other authorisation from NRW before doing something;
 - that may be enforced by NRW; or
 - that applies to NRW and is concerned with the way in which (or the purposes for which) natural resources are managed or used.
117. Section 22(2) provides that regulations may not remove or modify a function of a Minister of the Crown which was exercisable before 5 May 2011, without the consent of the Secretary of State.
118. Section 22(3) provides that regulations may also only be made where the Welsh Ministers:
- Are satisfied that the provision is necessary to enable an experimental scheme (see sections 22(9) and 23) that is likely to contribute to the sustainable management of natural resources (as defined in section 3);
 - Are satisfied that the regulations do not have the overall effect of increasing regulatory burdens for any person;
 - Have consulted those they think are likely to be affected by the provisions of the regulations and those persons that they think are likely to be otherwise affected by the experimental scheme.
119. Regulations are subject to the affirmative resolution procedure (see section 25(3)) unless their only substantive effect is to revoke previous regulations under section 22(1) – in which case no Assembly procedure applies and there is no obligation to undertake any consultation. Regulations might be revoked where an experimental scheme has ended prior to the initial three year period or before the end of any extension period and as such the regulations are no longer necessary.
120. The regulations may apply only in relation to Wales.

121. An application made by NRW for regulations to be made may, for example, be on the basis that a particular proposed experimental scheme would require an exemption from the need to obtain a particular consent to be able to undertake a particular activity. The purpose of the suspension could be to trial minimum common standards, which could be applied in place of the consent for particular circumstances or activities.
122. Section 22(8) requires NRW to evaluate an experimental scheme for which statutory requirements have been suspended or relaxed, and publish the evaluation of the scheme.
123. Section 22(9) defines an experimental scheme as a scheme carried out under arrangements made by NRW under article 10C of the Natural Resources Body for Wales (Establishment) Order 2012 (“the Establishment Order”), which is a scheme designed to develop or to apply new or modified methods, concepts or techniques, or to develop or test proposals for regulatory change.

Section 23 – Power of NRW to conduct experimental schemes etc.

124. This section substitutes a new provision for article 10C of the Establishment Order.
125. The new article 10C, (as substituted by section 23) has the effect of extending the general research functions of NRW to include the making of arrangements for the carrying out of experimental schemes.
126. The new article 10C(1) gives NRW (referred to in the Establishment Order as “the Body”) power to make arrangements for the carrying out of research and experimental schemes that are relevant to the exercise of its functions. Research or schemes may be carried out by NRW or other persons.
127. Article 10C(3) provides that when NRW carry out functions to monitor nature conservation and related activities such as experimental schemes, it must have regard to the common standards for the monitoring of nature conservation, research into nature conservation and analysis of resulting information that have been established by the Joint Nature Conservation Committee (as provided under section 34(2) of the Natural Environment and Rural Communities Act 2006).
128. The purpose of new article 10C is to enable NRW to undertake, support or commission research and also experimental or innovative schemes, whereby these schemes are a means to trial new approaches to the delivery of their powers and obligations under legislation in a way that can help them to meet their overarching purpose of achieving the sustainable management of natural resources.
129. NRW currently has powers under section 4 of the Countryside Act 1968 (“the 1968 Act”) to make and carry out experimental schemes designed to facilitate the enjoyment of the countryside, or to conserve or enhance its natural beauty or amenity. This power is therefore restricted to a limited area of NRW’s remit. The new article 10C extends the scope of NRW’s power to conduct experimental

schemes. Section 4 of the 1968 Act is repealed in relation to NRW (see paragraph 2(2) of Schedule 2 to the Bill).

130. For the purposes of article 10C an experimental scheme is a scheme designed to develop or apply new or modified methods, concepts or techniques, or to develop or test proposals for regulatory change.
131. NRW may trial the development or application of new methods, concepts or techniques to deliver their actions in a way that helps to achieve the outcome of sustainable management of natural resources. This may include new administrative, technical, or scientific approaches to achieving this outcome. An example of this could include the trialling of new standards or conditions, which may lead to the development of legislation providing for a general binding rule (GBR) i.e. the trialling of alternative methods of regulating activities.
132. An illustrative example of this could be where NRW seeks to develop statutory codes of practice that can identify minimum standards for certain activities, without the need for permitting or licensing and which can deliver the same or improved standard of performance. NRW may wish to undertake a trial in a particular area covered by an area statement (as provided in section 11 of the Bill) to identify the role of natural resources to assist in flood alleviation (for example through the role of peatlands).
133. The power to support experimental schemes is not limited to financial support and so could include the provision of equipment and expertise. Where NRW do provide financial support, this may be either as a grant or as a loan or a combination of both and may attach conditions requiring repayment or the whole or part of any grant (articles 10B(2) and (3)).

Section 24 – Power to amend periods for the preparation and publication of documents

134. Sections 8(2) and (3) and 9(5) and (6) set out the timescales for publishing the state of natural resources report and the NNRP. This section provides that the Welsh Ministers may, by regulations, change those timescales. Subsection (3) provides that before making the regulations, the Welsh Ministers must consult NRW.

Section 25 – Regulations under this Part

135. This section establishes the Assembly procedure to be followed when making regulations under Part 1 of the Bill. All regulations in Part 1 are subject to the Assembly's affirmative procedure. However, regulations made under section 22(1) where the purpose is to revoke existing regulations made under that section are not subject to the affirmative procedure but only need to be laid before the Assembly (subsection (4)).
136. Subsection (2) gives flexibility for the regulations in Part 1 to apply differently in different circumstances and make transitional or saving provision.

Section 27 – Minor and consequential amendments and repeals

137. This section introduces Part 1 of Schedule 2 of the Bill which sets out the minor and consequential amendments and repeals of other legislation which are related to the provisions in Part 1 of the Bill.

Part 2 - Climate change

138. Part 2 of the Bill will set a duty on the Welsh Ministers to ensure that the ‘net Welsh emissions account’ for the year 2050 is at least 80% lower than the baseline. The Bill makes provisions for a net Welsh emissions account.

139. The Welsh Ministers must in regulations specify interim emissions targets for 2030 and 2040. These interim targets must be consistent with the 2050 target. The Bill also requires the Welsh Ministers to set in regulations a series of five-yearly carbon budgets between 2016 and 2050 and ensure that the net Welsh emissions account for each of these periods does not exceed the carbon budget for that period. These carbon budgets must be consistent with the interim and 2050 targets.

140. The Bill places a duty on the Welsh Ministers to produce a report detailing the policies and proposals that will deliver the reductions demanded by the carbon budgets in Wales by reference to the areas of responsibility of each of the Welsh Ministers. In setting or amending interim targets or carbon budgets, the Welsh Ministers must receive advice from the ‘advisory body’, which can be either the UK Committee on Climate Change (as established in the Climate Change Act 2008), a person designated by the Welsh Ministers in subordinate legislation, or the Welsh Ministers can establish a new body to exercise functions of the advisory body.

Section 28 – Purpose of this Part

141. This section sets out the purpose of this Part is to require the Welsh Ministers to meet targets for reducing emissions of greenhouse gases from Wales.

Section 29 - The 2050 emissions target

142. Subsection (1) of this section imposes a duty on the Welsh Ministers to ensure that the net Welsh emissions account for 2050 is at least 80% lower than the baseline. The baseline is defined in section 38 as the aggregate amount of net Welsh emissions of certain listed greenhouse gases for the baseline years of those gases. The target for 2050 is set by reference to baseline years rather than a particular quantum of emissions because the baseline years are subject to revision as understanding of historic emissions improves. Using baseline for this calculation is consistent with the methodology employed for the purposes of the Kyoto Protocol, an international agreement to limit emissions of greenhouse gases, to which the UK is party.

143. Subsection (3) provides the Welsh Ministers with a power to amend subsection (1) by setting the 2050 target as a percentage greater than 80%. The power may be used if one of the conditions provided in section 32(2) is met.

144. The term “the net Welsh emissions account” is defined in section 34. See explanatory notes on sections 33 and 38 for a more detailed explanation of carbon accounting and the net Welsh emissions account.

Section 30 - Interim emissions targets

145. This section places a duty on the Welsh Ministers to set interim emissions targets, which are maximum amounts for the net Welsh emissions account for each interim target year. It also places a duty on the Welsh Ministers to ensure that those targets are not exceeded. These interim targets will be expressed as a percentage reduction and work in the same way as the 2050 target.
146. Subsection (3) specifies that the interim target years are 2030 and 2040 and subsection (4) requires that before the end of 2018, the Welsh Ministers must set interim emissions targets for those years.

Section 31 - Carbon budgets

147. This section places a duty on the Welsh Ministers to set, for each 5 year budgetary period, a maximum total amount for the net Welsh emissions account, which is known as a carbon budget. The Welsh Ministers are required to ensure that net Welsh emissions account for each period does not exceed the carbon budget for that period. The first budgetary period is set as 2016 to 2020 and each succeeding period of five years, ending with 2046-2050.
148. The section requires the Welsh Ministers to set 2 consecutive carbon budgets for the periods 2016-2020 and 2021-2025 before the end of 2018. It also creates a duty to set subsequent carbon budgets at least 5 years in advance of the next budgetary period.

Section 32 - Emissions targets and carbon budgets: principles

149. This section requires the Welsh Ministers to set interim emissions targets at a level that is consistent with meeting the 2050 emissions target. It requires the Welsh Ministers to set carbon budgets at a level that is consistent with meeting any interim target that has been set and the 2050 target.
150. Under subsection (2), the Welsh Ministers may not make regulations which change the 2050 emission target, an interim emissions target or a carbon budget unless at least one of the following conditions is met:
- They are satisfied that it is appropriate to do so as a result of significant development in either scientific knowledge about climate change or in EU or international law or policy that relates to climate change;
 - The advisory body has made a recommendation; or
 - Regulations have been made under section 35 or 37 providing for emissions of a greenhouse gas from international aviation or international shipping to count as part of the Welsh emissions of the gas, or amending the list of greenhouse gases that are relevant for the purposes of Part 2.

151. Subsection (3) places a duty on the Welsh Ministers to have regard to a set of criteria when making regulations changing the 2050 emissions target, or setting or changing an interim emissions target or a carbon budget. The criteria are:
- The most recent state of natural resources report published by NRW under section 8 of Part 1 of this Bill;
 - The most recent future trends report under section 11 of the Well-being of Future Generations (Wales) Act 2015;
 - The most recent report (if any is available at the time of setting or changing any of the targets or budget) of the Future Generations Commissioner under section 23 of that Bill;
 - Scientific knowledge about or technology relevant to climate change; and
 - EU and international law and policy relating to climate change.
152. Subsection (4) states that sections 49 and 50 make provision about advice that the Welsh Ministers must obtain from the advisory body which they must take into account before making any regulations changing the 2050 target or setting or changing an interim emissions target or carbon budget.

Section 33 – The net Welsh emissions account

153. Subsection (1) defines the net Welsh emissions account as the aggregate of net Welsh emissions, minus any carbon units credited to the account for the period plus any carbon units debited from the account for the period.
154. Subsection (2) enables the Welsh Ministers to define in regulations which carbon units can be credited to and debited from the net Welsh emissions account, and how this can be done.
155. Subsection (3) provides that regulations made under subsection (2) must ensure that, where carbon units are used to reduce the net Welsh emissions account, they are not also used to offset other emissions elsewhere. This could otherwise lead to “double-counting”.
156. *Subsection (4)* provides that regulations must limit the extent to which carbon units can be used to reduce the net Welsh emissions account.

Section 34 – Net Welsh emissions

157. This section defines Welsh emissions and Welsh removals of greenhouse gases, and provides that Welsh emissions minus Welsh removals are net Welsh emissions for a period.

Section 35 – Welsh emissions from international aviation and shipping

158. This section enables the Welsh Ministers to make regulations providing for emissions of a greenhouse gas from international aviation and international shipping to count as Welsh emissions of the gas.

Section 36 – Carbon units

159. This section enables the Welsh Ministers to define “carbon units” in regulations. It provides the Welsh Ministers with the power by regulations, to establish a

scheme or use an existing scheme, for the registering and tracking of carbon units and for establishing and maintaining accounts in which carbon units may be held.

160. The regulations may provide for an existing scheme to be adapted. The regulations may also make provision to appoint an administrator of the scheme; confer or impose functions on the administrator; confer power on the Welsh Ministers to give guidance or directions to the administrator; confer power on the Welsh Ministers to delegate the performance of any of the functions conferred or imposed through the regulations; and require the payment of those using the scheme of charges towards the cost of operating it.

Section 37 - Greenhouse gases

161. This section lists “greenhouse gases” for the purpose of Part 2 of the Bill and enables the Welsh Ministers to make regulations to add a gas or modify a description of a gas.

Section 38 - The baseline

162. This section defines the “baseline” for the purposes of this Part of the Bill and enables the Welsh Ministers to make regulations to amend that baseline. This would enable the Welsh Ministers to specify the baseline year for a greenhouse gas which has been added by regulations under subsection 37(2) or modify the baseline year for a greenhouse gas that is already listed. The Welsh Ministers can only modify the baseline year for a greenhouse gas if they are satisfied that it would be appropriate to do so as a result of significant developments in EU or international law or policy relating to climate change.

Section 39 - Proposals and policies for meeting carbon budgets

163. This section places a duty on the Welsh Ministers, to prepare a report, which sets out their proposals and policies on how the budgets they have set will be met. The report must include proposals and policies by reference to the areas of responsibilities of each of the Welsh Ministers. For the first budgetary period the report is to be produced as soon as reasonably practicable after setting the carbon budget for that period (as provided in section 31). For subsequent budgetary periods the report must be published before the end of the first year of the period in question. The Welsh Ministers are required to publish the report.

Section 40 - Carrying amounts from one budgetary period to another

164. This section provides a power for the Welsh Ministers to “bank” and “borrow” emissions between budgetary periods.
165. Under subsection (1) the Welsh Ministers may “borrow” up to 1% of the next budget. An amount from the next budget is “carried back” to the budget preceding it. Where this power is used, the next budget (which will already have been set by order) is reduced by the amount that has been borrowed.
166. Subsection (3) limits the amount that can be borrowed under subsection (1) to no more than 1% of the next budget.

167. Under subsection (4) the Welsh Ministers may carry forward any part of the carbon budget that exceeds the net Wales carbon account for that period (i.e. to “bank” a budget surplus, but not necessarily all of it). The banked amount is added to the next budget (subsection (5)).
168. The Welsh Ministers must consult with the ‘advisory body’ before exercising powers under this section (that is, before banking or borrowing).

Section 41 - Final statement for budgetary period

169. This section places a duty on the Welsh Ministers to lay a statement before the National Assembly for Wales on the final figures for the net Wales emissions account during a budgetary period; these figures are used to determine whether a budget has been met.
170. Subsections (2) to (6) place a duty on the Welsh Ministers to provide information on:
- under subsection (2), the total amounts of Welsh emissions, Welsh removals and net Welsh emissions for each greenhouse gas (each of the gases included in the target – see section 36).
 - under subsection (3), the total amount of carbon units that have been credited to or debited from the Wales emission account in that budgetary period, and details of the number and type of those units;
 - under subsection (4), the final amount of the net Wales emission account for the budgetary period;
 - under subsection (5), whether the Welsh Ministers have decided to bank a surplus from the previous budget or to borrow from the next budget (using the power in section 40) and, if so, the amount banked or borrowed;
 - under subsection (6), the final amount of the carbon budget for the period.
171. Subsection (7) provides that the question of whether the budget has been met is to be determined by reference to the figures in the statement.
172. Subsection (8) requires the Welsh Minister to provide an explanation of why they consider that the carbon budget has been met or not met.
173. Subsection (9) requires that the statement must include the Welsh Ministers’ assessment of the extent that their proposals and policies (including those set out in the report under section 39) have contributed to the carbon budget for that period and how these have been carried out.

Section 42 - Proposals and policies where carbon budgets not met

174. This section requires the Welsh Ministers to lay a report, within three months before the National Assembly for Wales setting out proposals and policies to compensate for emissions, where for a budgetary period the net Welsh emissions account exceeds the carbon budget. This section applies where a final statement has been laid before the National Assembly for Wales in respect of that budgetary period.

Section 43 - Statements for interim target years and 2050

175. This section places a duty on the Welsh Ministers to prepare and lay before the National Assembly for Wales a statement for each interim target year and for 2050 before the end of the second year after the year to which the target relates.
176. Subsections (2) to (4) requires the following information to be included in the statements for each of the appropriate target years:
- under subsection (2), in respect of each greenhouse gas the total amount of Welsh emissions, Welsh removals and net Welsh emissions for the interim target years and 2050;
 - under subsection (3), the total amount of carbon units that have been credited to and debited from the net Welsh emissions account, and details of the number and type of units;
 - under subsection (4), the amount of the net Welsh emissions account for the year.}
177. Subsection (5) provides that the question of whether the interim targets or 2050 target has been met is to be determined by referring to the information provided in the statement for the target year to which it relates.
178. Subsection (6) provides that the Welsh Ministers must include an explanation of the reasons why they consider that the targets have or have not been met.
179. Subsection (7) enables the Welsh Ministers to combine a statement for interim target years and for the 2050 emissions target with the statement for a carbon budgetary period (under section 41) that covers the year of the relevant target.

Section 44 - Advisory body

180. This section enables the Welsh Ministers, by regulations, to establish a new body to exercise functions of the advisory body or to designate a person to be the advisory body for the purposes of Part 2 of the Bill. The Welsh Ministers may only designate a person that exercises functions of a public nature.
181. Subsection (3) provides that if the Welsh Ministers do not establish a new body or designate a person by regulations under subsection (1) , the advisory body will be the UK Committee on Climate Change (established under section 32 of the Climate Change Act, 2008).
182. Subsection (4) provides that regulations under subsection (1)(a) may include provisions about: the status and membership of the body; employment of staff, remuneration, allowances and pensions for members and staff; the organisation and procedure of the body; and reports and accounts.
183. Subsection (5) provides that regulations to establish a new body as the advisory body may include a provision which would enable the Welsh Minister's to give directions to the advisory body in relation to the matters listed in subsection (4).

Section 45 - Progress reports

184. This section places a duty on the advisory body to submit reports at specified time periods to the Welsh Ministers setting out its view on progress that has been made in relation to the interim and 2050 targets and on the carbon budgets. The advisory body must provide views on whether the targets and budgets are likely to be achieved and views on any further action considered necessary to achieve them.
185. Subsection (1) requires the advisory body to submit a report to the Welsh Ministers before the end of the first budgetary period (which covers the years 2016-20) providing its views on progress towards meeting the carbon budgets that have been set under Part 2, any interim target that have been set under this Part and for the 2050 emission target.
186. Subsection (2) requires the advisory body to send a report to the Welsh Ministers no later than six months after a final statement for budgetary periods (see section 41) has been laid by the Welsh Ministers before the National Assembly for Wales. This report must provide the advisory body's views on the way in which the carbon budget for the period has been met or not, actions taken by the Welsh Ministers to reduce the net Wales emission account and also the matters that are set out in subsection (1).
187. Subsections (3) and (4) require the advisory body to send a report to the Welsh Ministers containing its views on whether the next interim target (where relevant) and the 2050 target is the highest achievable and, if not, what is the highest achievable target. The report must be sent to the Welsh Ministers no later than six months after the statements for the interim target years under section 43 have been laid by the Welsh Ministers before the National Assembly for Wales.
188. Subsection (5) provides that the reports under subsection (3) or (4) can be combined with a report under subsection (2) on a carbon budget.
189. Subsection (6) places a duty on the Welsh Ministers to lay a copy of each of the reports they receive under subsections (1) and (2) before the National Assembly for Wales.
190. Subsection (7) places a duty on the Welsh Ministers to lay a response to any report they receive under this section from the advisory body before the National Assembly for Wales no later than six months after receiving the report.

Section 46 - Duty of advisory body to provide advice and assistance

191. This section places a duty on the advisory body to respond to requests for advice, analysis, information and assistance by the Welsh Ministers in connection with Ministers' functions under the Bill or in relation to climate change in general.

Section 47 - Guidance to advisory body

192. This section provides that the advisory body must have regard to any guidance given by the Welsh Ministers in respect of carrying out its functions under the Bill. Subsection (2) provides that the Welsh Ministers may not give the advisory body guidance on the content of any advice or report.

Section 48 - Regulations: procedure

193. This section establishes the Assembly procedure to be followed when making regulations under Part 2 of the Bill. Where the regulations designate a person to be the advisory body (section 44(1)(b)) and do not amend primary legislation, or where regulations make provision about international carbon reporting (section 52), they are subject to the Assembly's negative procedure. All other regulations in Part 2 are subject to the Assembly's affirmative procedure.

Section 49 - Requirement to obtain advice about proposals to make regulations

194. This section provides that before any affirmative regulations are made under section 48(1) in this Part, the Welsh Ministers must request advice from the advisory body (see section 44) about the proposal to make the regulations and also take that advice into account.
195. Subsections (2) to (4) require that when the Welsh Ministers request advice from the advisory body, they must specify a reasonable time period in which to provide the advice. The advisory body must provide the advice within that time period and must set out the reasons for the advice.
196. Subsection (5) places a duty on the Welsh Ministers to publish any advice they receive from the advisory body as soon as reasonably practicable after they have received it.
197. Subsection (6) provides that if the draft affirmative regulations made under section 48(3) are different to what was recommended by the advisory body, the Welsh Ministers must lay before the National Assembly a statement explaining the reasons why the regulations are different.
198. Subsection (7) provides that the Welsh Ministers do not need to seek the advice of the advisory body before laying regulations, which either establish a new body as the advisory body or designate a person as the advisory body.

Section 50 - Advice about proposed regulations relating to targets and budgets

199. This section places a duty on the advisory body that when responding to Welsh Ministers requests under section 49 it provides specific advice on proposed regulations for setting or amending interim targets (see section 30 or carbon budgets (section 31)).
200. Subsection (1) requires that in relation to changing the 2050 emissions target or setting or changing interim emissions targets, the advisory body's advice must include its opinion on whether the Welsh Minister's proposed interim target is the highest achievable target and if not, what the body considers is the highest achievable interim target.

201. Subsection (2) requires that the advisory body's advice in relation to setting or changing carbon budgets must advise on the levels at which carbon budgets should be set and on the extent to which budgets should be met by reducing the amount of net Wales emissions or by the use of carbon units credited to the net Wales emissions account. The use of carbon units must be in accordance with any regulations made under sections 33 or 36. The advisory body must advise on the respective contributions towards meeting carbon budgets that should be made by sectors of the Welsh economy covered by trading schemes (taken as a whole) and by other sectors not covered (taken as a whole). The advisory body is also required to advise on sectors of the Welsh economy in which there are particular opportunities for contributions to be made towards meeting carbon budgets through reductions in emissions of greenhouse gases.
202. Subsection (3) requires the advisory body when advising the Welsh Ministers on making regulations that will change the 2050 emissions target or set or change an interim emissions target or a carbon budget to have regard to the criteria in section 32(3) of the Bill.
203. Subsection (4) defines that a 'trading scheme' in this section is a scheme under section 44 of the Climate Change Act 2008. Section 44 of that Act provides for trading schemes, which limit activities that consist of the emission of greenhouse gases, or that directly or indirectly lead to such emissions (for example, "cap and trade schemes" which cap emissions from a particular set of activities and allow trading of emissions within the cap).

Section 51 – Measurement of emissions

204. Section 51 provides that emissions, emissions reductions and removals are to be measured in tonnes of carbon dioxide equivalent, and defines that term.

Section 52 – International carbon reporting practice

205. Section 52 defines international carbon reporting practice in terms of the protocols to the United Nations Framework Convention on Climate Change, or other European or international arrangements or agreements which the Welsh Ministers specify by regulations. This power allows the definition to be updated to take account of new international arrangements and agreements.

Part 3 – Charges for Carrier Bags

206. This Part gives the Welsh Ministers powers to make regulations about charges for carrier bags.
207. It repeals in relation to Wales section 77 of, and Schedule 6 to, the Climate Change Act 2008 (c.27) which conferred powers on the Welsh Ministers to make regulations about charges for carrier bags intended for single use. The Climate Change Act was amended by the Waste (Wales) Measure 2010 which conferred further powers to make regulations about how the net proceeds from the sale of carrier bags must be applied. These powers were not exercised at that time as the preferred policy was to enlist the co-operation of the sellers by encouraging them to apply the net proceeds to good causes through a voluntary agreement.

208. The regulations made under these provisions at the time of introduction of the Bill to the National Assembly on 11 May 2015 are the Single Use Carrier Bag Charges (Wales) Regulations 2010 (2010 No.2880 (W.238) (as amended by the Single Use Carrier Bag Charges (Amendment) Regulations 2011 (2011 No.2184 (W.236)).
209. Provisions in this Part generally confer the same regulation-making powers as the Climate Change Act. The main changes are that;
- (a) definitions of the key terms “carrier bag” and “seller of goods” are set out in the primary legislation rather than being left to regulations;
 - (b) the Welsh Ministers may, by regulations, impose a minimum charge for any type of carrier bag as may be specified in regulations and not just to those intended for single use;
 - (c) sellers are now required to apply the net proceeds of sales of carrier bags to any charitable purpose as specified in regulations and not just to environmental good causes;
 - (d) the regulations are in all cases subject to affirmative.

Section 54 – Meaning of “carrier bag”

210. Section 54 defines “carrier bags” as those bags which may be supplied either at the place where the goods are sold, or those supplied for the purpose of delivering goods. Generally carrier bags to which a minimum charge may apply would be those which are supplied by retailers to their customers when they buy goods in store or those supplied by companies who are delivering goods such as a supermarket providing an online grocery delivery service.

Section 55 – Power to impose requirement to charge

211. Section 55(1) provides that the Welsh Ministers may, by regulations, require sellers of goods to charge for carrier bags as specified in the regulations that are supplied in circumstances mentioned in subsection (2). These circumstances are either where the goods are sold from a place in Wales, or where they are intended to be delivered to a person living in Wales.

Subsection (3) provides that carrier bags may be described by reference to their technical specifications such as a bag’s size, thickness, composition, price and/or its intended use or a combination of any of these factors. Price was not specified as a factor in Schedule 6 to the Climate Change Act 2008.

Section 56 – Sellers of goods

212. Section 56 provides for the carrier bag regulations to apply to either all sellers or to certain types of seller. It allows the regulations to apply provisions to both named sellers and to sellers identified by reference to specified factors.
213. “Sellers” for the purpose of the regulations may, for example, include high street retailers, supermarkets, street or market traders or any person running an internet business selling goods. The term does not include, and the regulations may not apply to, any person who occasionally sells their own possessions privately, for example, at a car boot sale or on an internet sale or auction site.

Section 57 – Application of proceeds

214. Section 57(1) requires sellers to apply the charges they receive from the sales of carrier bags (less deductions) to charity.
215. The amount that must be applied to charitable purposes will be the net proceeds of the charge. The net proceeds are defined in section 64 to mean the gross proceeds of charge less any amount that the regulations may specify such as, for example, administration costs. The “gross proceeds of the charge” means the amount that the seller receives as a result of the minimum charge. It does not include money received which is over and above the minimum charge so if the sellers charges 8p for a bag and the minimum charge is 5p the gross proceeds will be 5p.
216. The net proceeds of sale must be applied to “charitable purposes” as defined in subsection (5). The regulations may also specify the charitable purposes to which the net proceeds must be applied. “Charitable purposes” has the same meaning as in section 2 of the Charities Act 2011 (c.25) and those purposes are listed in section 3 of that Act. They include, for example, causes for the prevention or relief of poverty, the advancement of environmental protection, education, religion, health, arts, sports and animal welfare.
217. Under subsection (5) regulations may modify the definition of “charitable purpose” where the Welsh Ministers consider it necessary or expedient for securing an appropriate application of the net proceeds of the charge. This power might be exercised, for example, where the definition in section 2 of the Charities Act has been amended and the new definition is considered no longer appropriate for the purpose of the regulations.
218. Subsection (2) provides for the regulations to make provision about the arrangements for applying the net proceeds and the persons who may accept those proceeds on behalf of the charity. Under subsection (3), the regulations may give the Welsh Ministers powers to enforce this provision if the seller fails to apply the net proceeds as required.

Section 58 - Administration

219. Section 58 makes provision about who may be responsible for administering the carrier bag charging regime. This section provides that the carrier bag regulations may appoint any person to be an administrator and may confer powers and duties on that person for the purpose of administering the regime. Under the 2010 Regulations, county and county borough councils are the administrators for their area.
220. In order to confer powers and duties on the administrator under subsection (3), subsection (4) provides that the regulations may modify enactments that apply to the administrator (such as enactments about the powers and duties of local authorities). “Enactment” is defined in section 8764. The administrator’s enforcement functions are in section 60.

Section 59 – Record-keeping and publication of records

221. This section makes provision about records that must be kept and information that must be provided in relation to the carrier bag charging regime. This section may apply to any person but the regulations are most likely to impose duties on the sellers and any person who receives any net proceeds of charge for charitable purposes.
222. Currently regulation 8(3) of the Single Use Carrier Bags (Wales) Regulations 2010 requires sellers to keep information on the number of single use carrier bags supplied, the amount received by way of the charge and the uses to which the net proceeds have been put.
223. Subsection (2) provides that the regulations may require information about carrier bag charges to be published or supplied to any of the persons identified in paragraphs (i) to (iii). These are Welsh Ministers, any administrator appointed under section [105] or members of the public.
224. Subsection (3) provides examples of records or information that may be required under the regulations. Regulations could, for example, require sellers to provide information about how many bags they have sold in any given period and the amount they have received in charges. They might also require the sellers to give a breakdown of how they have calculated the net proceeds of sale as defined in section [104] (6) and how those proceeds have been used.
225. Subsection (4) provides that the regulations may require any person who receives any net proceeds of the carrier bag charge (whether paid voluntarily or as required by regulations made under section 57) to publish or supply records or information about the money they have received.

Section 60 - Enforcement

226. Section 60 enables carrier bag regulations to make provision about how the carrier bag regime is to be enforced. The regulations may confer various functions on administrators appointed under section 58. The regulations may give the administrator the power to require the seller to provide information and documentation and to question the sellers or their employees, but only if the administrator reasonably believes that there has been a failure to comply with the regulations.

Section 61 – Civil sanctions

227. Section 61 introduces Schedule 2 which makes provision about civil sanctions that may be imposed on any person who does not comply with the carrier bag regulations.

Section 62 – Regulations under this Part

228. Section 62 provides that the carrier bag regulations must be made by statutory instrument and cannot be made until a draft has been laid before and approved by resolution of the National Assembly for Wales i.e. affirmative resolution procedure.

229. This section also gives the Welsh Ministers power to include provisions in the carrier bag regulations dealing with any ancillary matters, and to apply the regulations in different ways for example, by applying different minimum charges to different types of bag.

Section 64 – Minor and consequential amendments and repeals

230. This section makes minor and consequential amendments and repeals in the Climate Change Act 2008 and the Waste (Wales) Measure 2010.

Part 4 – Collection and Disposal of Waste

231. Part 4 of the Bill is concerned with the collection and disposal of waste, and makes provision for source segregation and separate collection of recoverable waste materials, the banning of recoverable materials from incineration facilities and the banning of the disposal of food waste to sewer from non-domestic premises. The purpose of the provisions is to promote increased separation of different types of waste, and prohibit the disposal of recoverable types of waste.

Section 65 - Requirements relating to separate collection etc. of waste

232. Section 45 of the Environmental Protection Act 1990 (c 43), requires local authorities in Wales, to arrange to collect household waste, and, on request, commercial waste, produced in their area. The local authority either fulfils this function using its own resources, or arranges with a private contractor to carry out the function on its behalf. Commercial and industrial waste not falling within the local authority duties in section 45, are collected by private contractors by way of individual contract with the waste producer. Collectively, household, commercial and industrial waste are referred to in that Act, as “controlled waste”¹⁰⁴.
233. In addition to the requirements of section 45 of the Environmental Protection Act 1990, waste collectors must comply with the requirements of regulations 13 and 14 of the Waste (England and Wales) Regulations 2011 [S.I. 2011/988], which transpose in part, EU Directive 2008/98/EC (the Waste Framework Directive). The regulations require that from 1 January 2015, subject to certain provisions, waste collectors must separately collect at least paper, metal, plastic and glass, and keep those materials separate after collection.
234. Against this background, section 65 inserts a new section 45AA (“Wales: separate collection etc. of waste”) into the Environmental Protection Act 1990. The purpose of the provisions in the new section, is to provide the Welsh Ministers with powers to extend the range of types of waste to be separately collected, and to specify the steps that must be taken to achieve increased separation of waste types.
235. In section 45AA, subsections (1) and (2) are concerned with separate collection of different waste materials. Subsection (1) applies to local authorities exercising their functions under section 45, to make arrangements for collection of controlled waste in their area, for example, with a private contractor. It requires

¹⁰⁴ “The terms “household, commercial, industrial and controlled” waste are defined in section 75 of the Environmental Protection Act 1990

the local authority to ensure that the collection of waste under the arrangement, is consistent with applicable separation requirements.

236. Subsection (6) confers a power on the Welsh Ministers to specify separation requirements in regulations, and subsection (7) confers a related power, to specify the circumstances in which such requirements apply. The nature of separation requirements is defined in subsection (6). For example, the Welsh Ministers may specify in regulations which materials should be presented and collected separately and how the wastes should be kept separate from each other once collected. This could include specifying the level of segregation of different waste materials that may be required under different circumstances.
237. Subsection (2) applies the same duty to those who collect, keep, treat or transport controlled waste. The duty to act in accordance with applicable separation requirements is intended to apply at all stages in the waste chain, from production of the waste, to final treatment or disposal. It will affect those, including local authorities, who collect, receive or store waste, those carriers who transport waste, and reprocessors, for example, recyclers, who treat waste. The duty does not apply to individuals who are not acting in the course of a business. "Acting in the course of a business" is defined in subsection (3).
238. Subsection (10)(a) confers a power on the Welsh Ministers in regulations, to make the duty in subsections (1) and (2) subject to exceptions. This power, in conjunction with the general power in subsection (11) to make different provision different purposes, cases or areas, will allow the Welsh Ministers to take account of the wide range of circumstances in which these provisions will apply.
239. Subsection (4) complements the requirements in subsections (1) and (2), by extending the duty to act in accordance with applicable separation requirements to certain categories of waste producers, when presenting waste for collection. This provision requires occupiers of premises, other than householders, to present controlled waste for collection in accordance with applicable separation requirements. Such requirements may for example, include specifying in regulations, types of recyclable waste materials that must be presented separately for collection.
240. Subsection (5) contains exceptions to the duty in subsection (4). The duty will not apply to occupiers of domestic households or caravans. Subsection (10)(b) provides a power for the Welsh Ministers to make subsection (4) apply subject to exceptions in addition to those in subsection (5). This will permit the Welsh Ministers to adapt the application of the duty in subsection (4) to future changes in waste collection policy.
241. Subsection (8) makes it an offence to fail to comply without a reasonable excuse, with the duty in subsection (2) or (4). By subsection (9), such offences are summary offences, triable in the Magistrates court. The penalty on conviction is a fine.
242. Subsection (11) allows the Welsh Ministers, when exercising their other powers to make regulations under this section, to make different requirements for

different circumstances, or to apply requirements differently in different geographical areas. This power by its nature will be exercised in conjunction with the exercise of other powers under this section.

243. Section 45AB (Code of practice), subsections (1) and (2), provide the Welsh Ministers with a power to issue, revise or revoke a code of practice providing guidance on how to comply with the duties in section 45AA. Subsection (3) places the Welsh Ministers under a duty to consult persons that they consider appropriate, before issuing a code. This might include, for example, NRW and Welsh local authorities, in addition to other stakeholders. Subsection (4) requires that once issued, the code, or any revision to an existing code, must be published and laid before the National Assembly for Wales.
244. Such a code of practice would not be directly binding on a person subject to the duties in section 45AA. However, subsection (5) makes the code of practice admissible in evidence in court proceedings, for example where a court is considering whether or not an offence under section 45AA(8) has been committed, and the court must take account of the code on questions to which it is relevant.

Section 66 - Prohibition on disposal of food waste to sewer

245. Section 34 of the Environmental Protection Act 1990 places a broad duty of care in England and Wales, on any person who imports, produces, carries, keeps, treats or disposes of controlled waste or, as a dealer or broker, has control of such waste, to take all reasonable measures the circumstances, to prevent, amongst other things, any unlawful deposit of waste by another person, or any contravention of the Environmental Permitting Regulations 2010.
246. Section 66 inserts a new section 34D into the Environmental Protection Act 1990, which in subsection (1), bans the disposal of food waste to public sewer from non-domestic premises in Wales. Under the prohibition, the occupier of any non-domestic premises must not dispose of food waste to a public sewer or to any drain that discharges to a public sewer. Non-domestic premises include business and public sector premises, but do not include, for example private houses. The operation of subsection (1) is subject to a power of the Welsh Ministers, in subsection (6)(a), to specify in regulations, the circumstances in which subsection (1) is to apply. This power, in conjunction with the general power to make different provision for different purposes in subsection (7), permits the Welsh Ministers to take account of the wide range of premises and circumstances in which the prohibition on disposal of food waste will apply.
247. Subsection (2) sets out exceptions to the prohibition in subsection (1). Occupiers of domestic property and caravans are excepted. Subsection (2) is subject to a power of the Welsh Ministers in subsection (6)(b), in conjunction with the power in subsection (7), to make regulations to make subsection (1) apply subject to exceptions in addition to those in subsection (2). As for subsection (1), this will enable the Welsh Ministers to take account of changing circumstances and government policy.

248. Food waste is defined in subsection (5). Subsection (6)(c) provides a power for the Welsh Ministers by regulations, to amend the definition of food waste.
249. Subsection (3) provides that failure to comply with the prohibition in subsection (1) without a reasonable excuse will be an offence, and by virtue of subsection (4), such an offence is triable in the Magistrates Court, and on conviction, the person committing the offence will be liable to an unlimited fine.
250. A consequential amendment, which clarifies that any trade effluent consent issued to an occupier by the sewerage undertakers under the provisions of the Water Industry Act 1991, does not override the prohibition in the Bill against disposing of food waste to sewer. It ensures that anything exempted from the prohibition by regulations made by the Welsh Ministers is capable of being regulated by the trade effluent regime.

Section 67 - Power to prohibit or regulate disposal of waste by incineration

251. Section 9 of the Waste (Wales) Measure 2010, contains provisions, which confer powers on the Welsh Ministers, to make regulations prohibiting or otherwise regulating, the disposal by landfilling, of specified types of waste. The purpose is to divert recoverable waste from disposal, and increase recycling in Wales. Section 67 inserts a new section 9A into the Measure, which contains provisions similar to those for landfill, but which relate to prohibition or regulation of incineration of specified types of waste.
252. Subsection (1) provides the Welsh Ministers with a power to make regulations which prohibit or otherwise regulate incineration in Wales of specified types of waste. Such a power may, for example, be used to specify certain types of otherwise recyclable waste material which are not to be incinerated.
253. Subsection (2) describes certain particular functions which may be exercised in making regulations under subsection (1). This includes a power to create offences, prescribe penalties and provide for enforcement authorities. Subsection (2) also includes a power to amend regulations made under section 2 of the Pollution Prevention and Control Act 1999, which would include the Environmental Permitting (England and Wales) Regulations 2010, which regulate, amongst other things, the permitting and operation of incineration facilities.
254. Subsection (3) defines incineration for the purposes of section 9A, along with “waste incineration plant”, and “waste co-incineration plant”. The power in subsection (1) therefore applies to plants including those whose main purpose is to burn waste (for example waste incinerators) and those who burn waste to provide energy to power a process.

Section 68 - Civil sanctions

255. Civil sanctions are made available as an alternative to prosecution for offences under the provisions set out in Part 3 of the Regulatory Sanctions and Enforcement Act 2008 (c.13), that may be used without redress to the court and that do not result in a criminal conviction. This section provides that they can be

used as an alternative, should the regulator be satisfied that an offence has been committed.

256. Subsection (1) provides that the regime of civil sanctions and controls under the Regulatory Sanctions and Enforcement Act 2008, is available in relation to offences committed under sections 65 and 66.
257. Subsections (2) to (8) amend section 10 of the Waste (Wales) Measure 2010, to bring offences committed under the provisions of the new section 9A concerning incineration, under the civil sanctions regime that is already in place in the Measure.

Section 69 - Regulations

258. Regulations in relation to Wales are made by the Welsh Ministers, and no-longer by the National Assembly for Wales. Subsections (1) to (3) amend and update section 161 of the Environmental Protection Act 1990, substituting references to the National Assembly for Wales to the Welsh Ministers.
259. Subsection (4) inserts new subsections (2AA) and (2AB) into section 161, which make provision for the Assembly procedure to be followed in relation to regulations brought forward by the Welsh Ministers under the new sections 45AA and 34D of the Environmental Protection Act 1990.

Section 70 - Minor and consequential amendments and repeals

260. This section provides for further amendments to be made to existing legislation as a result of the provisions brought forward in the Bill. The amendments are detailed within Part 3 of Schedule 2 to the Bill.

Part 5 - Fisheries for Shellfish

261. This Part of the Bill makes amendments to sections 1 and 3 of the Sea Fisheries (Shellfish) Act 1967 ("the 1967 Act") and introduces new sections 5A to 5F into it. The main purpose of these changes is to enable the Welsh Ministers to make the necessary provision and take the necessary action in relation to Shellfishery Orders, granted under section 1 of the 1967 Act, for the purposes of the protection and the prevention of harm to European Marine Sites (EMS). "European marine sites" is defined by new section 5F(1) of the 1967 Act (as inserted by section 50 of this Bill) by reference to regulation 8 of the Conservation of Habitats and Species Regulations 2010 which includes Special Areas of Conservation (designated pursuant to the Habitats Directive 92/43/EEC) and Special Protection Areas (designated pursuant to the Wild Birds Directive 79/409/EEC).

Section 71 - Applications for orders relating to fisheries

262. Section 1 of the 1967 Act currently enables the Welsh Ministers to make an Order conferring a right of Several and/or Regulating fishery. A Several Order transfers ownership of the specified shellfish to the person (known as the Grantee) upon whom that fishery is conferred. A Regulating Order enables a person to manage fishing activity (for the specified shellfish) within a specified area, often by issuing permits to others to fish.

263. Section 1(2) of the 1967 Act currently enables the Welsh Ministers to specify, in a statutory instrument, the form and manner in which an application for a Several or Regulating Shellfishery Order must be made. Section 71 of the Bill amends section 1 of the 1967 Act so that it is no longer necessary to make a statutory instrument for these purposes. The newly inserted subsection 1(2A) of the 1967 Act will enable the Welsh Ministers to specify the form and manner in which an application for a Shellfishery Order must be made, without the need to make subordinate legislation for that purpose.
264. Section 71 of the Bill further inserts a new subsection 1(2B) into the 1967 Act which enables the Welsh Ministers to require any person that applies for an Order under section 1 of the 1967 Act to provide any information that the Welsh Ministers consider necessary (which could include environmental information) in order to consider such an application.
265. These amendments to section 1 of the 1967 Act will apply in relation to any application made for an Order under section 1 of the 1967 Act, after section 71 of this Bill comes into force. Any such applications received before that date will be processed pursuant to the previous wording of section 1(2) of the 1967 Act.

Section 72 – Requirement to include environmental provisions in orders relating to fisheries

266. Section 72 of the Bill inserts a new section 5A into the 1967 Act which requires the Welsh Ministers to ensure that an Order made under section 1 of the 1967 Act includes any provisions considered appropriate to prevent harm to any EMS or to otherwise protect the marine environment. “Marine environment” is defined by the new sub-section 5A(2). Definitions of “European marine site” and “harm” for these purposes are provided at section 5F(1) of the 1967 Act, inserted by section 75 of the Bill.
267. The provisions of the new section 5A will not apply in relation to any Shellfishery Order made under section 1 of the 1967 Act before Part 5 of the Bill comes into force (see section 5F(3) of the 1967 Act, inserted by section 75 of the Bill).

Section 73 – Power to serve notices for protection of European marine sites

268. Section 73 of the Bill inserts new sections 5B, 5C and 5D into the 1967 Act. These new sections enable the Welsh Ministers to issue a Site Protection Notice (“SPN”) and deal with related matters.
269. In order to ensure that the Welsh Ministers have appropriate powers to prevent “harm” (as defined by section 5F(1) of the 1967 Act, inserted by section 75 of the Bill) to an EMS as a result of the operation of a Several and/or Regulated Shellfishery, sub-section 5B(1) provides a new power for the Welsh Ministers to serve a SPN on the Grantee of the relevant Shellfishery in the specified circumstances.
270. Section 5B(2) and (3) specify the requirements that may be included in a SPN. In some cases a SPN might identify the activities being undertaken as part of the management of the fishery that may harm (or become harming to) an EMS, and

then specify what steps must be taken or what actions must be avoided in order to prevent that harm from happening. It is noted that a SPN can include a requirement to take action as well as a requirement to abstain from taking certain actions.

271. Sub-section 5B(4) makes provision regarding the form and content of the SPN (which can include provision that the Grantees are required to comply with beyond the period of the Several or Regulating Fishery, see sub-section 5B(8) of the 1967 Act).
272. Sub-section 5B(5) requires the Welsh Ministers to consult with the relevant Grantee before issuing a SPN unless they are of the view that urgent action to prevent harm is needed and sub-section 5B(7) requires the Welsh Ministers to publish every SPN in such a way as to bring the SPN to the attention of anyone likely to be affected by it.
273. Sub-section 5B(6) enables the Welsh Ministers to adjust or cancel a SPN.
274. Sub-section 5B(9) provides that the enforcement powers set out at sub-sections 5(2) to (7) of the 1967 Act (which include powers to make inquiries and examinations and to enter onto certain land for those purposes etc.) are available for the purposes of the new section 5B (i.e. the power to serve a SPN).
275. Section 5C (inserted into the 1967 Act by section 73 of the Bill) provides an appeal mechanism in relation to SPNs by way of reference to the First Tier Tribunal. This section specifies the decisions which can be appealed and the persons that may bring or be party to such an appeal.
276. Sub-section 5C(4) enables the First Tier Tribunal to suspend or adjust a SPN while the appeal is ongoing and sub-section 5C(5) enables the Tribunal to confirm, amend or cancel the relevant SPN. Sub-section 5C(6) enables the Tribunal to order the Welsh Ministers, where the Tribunal varies or cancels a SPN, to pay compensation to any party to the appeal who has suffered loss or damage as a result of the relevant SPN.
277. If a Grantee who has been served with a SPN fails to comply with its terms, section 5D (inserted into the 1967 Act by section 73 of the Bill) enables the Welsh Ministers to take the necessary steps themselves and recover any costs associated with those actions from the Grantee.
278. The provisions of the new sections 5B, 5C and 5D will not apply in relation to any Shellfishery Order made under section 1 of the 1967 Act before Part 5 of the Bill comes into force (see section 5F(3) of the 1967 Act, inserted by section 75 of the Bill).

Section 74 - Power to vary or revoke orders to protect European marine sites

279. Prior to the provision brought forward by this Bill, changes to a fishery created by an Order under section 1 of the 1967 Act could only be made in a limited number of ways under the 1967 Act: by an application made under section 1(6) of the 1967 Act, in the circumstances that apply to section 1(10) of the 1967 Act

or, without making a textual amendment to the relevant Order, by way of a certificate pursuant to section 5(1) of the 1967 Act (where the necessary conditions have been met).

280. Section 74 of the Bill introduces a new section 5E into the 1967 Act. Sub-section 5E(2) enables the Welsh Ministers to vary or revoke a Several or Regulating Order, in certain circumstances. Sub-section 5E(1) provides that the power in sub-section 5E(2) is only available where the Welsh Ministers have served a SPN, which has not been cancelled (by the Welsh Minister or the First Tier Tribunal) and no appeal is pending in relation to that SPN (the meaning of a pending appeal is further described at section 5E(4)). Once those conditions have been met, sub-section 5E(2) then enables the Welsh Ministers to vary or revoke the relevant Several or Regulating Shellfishery Order in order to reflect the effect of the SPN. Sub-section 5E(3) sets out the relevant consultation requirements.
281. The provisions of the new section 5E will not apply in relation to any Shellfishery Order made under section 1 of the 1967 Act before Part 5 of the Bill comes into force (see section 5F(3) of the 1967 Act, inserted by section 75 of the Bill).

Section 75 – Supplementary provision

282. Section 75 of the Bill inserts a new section 5F into the 1967 Act which deals with a number of issues related to the new provisions inserted into the 1967 Act by this Bill.

Part 6 - Marine licensing

283. Part 6 of the Bill amends Part 4 of the Marine and Coastal Access Act 2009 (MCAA). Part 4 of the MCAA establishes a marine licensing regime. Section 65 of the MCAA provides that licensable marine activities cannot be carried out except in accordance with a marine licence granted by the appropriate licensing authority. Section 113(4) of that Act defines the appropriate licensing authority in relation to Wales and the Welsh inshore region. For the definition of Welsh inshore region see section 322 of the MCAA. Except as provided by section 113(4)(a) of the MCAA the Welsh Ministers are the appropriate licensing authority in relation to Wales and the Welsh inshore region. Part 6 of the Bill applies where the Welsh Ministers are the appropriate licensing authority.
284. Part 4 of the MCAA confers functions on the Welsh Ministers as the appropriate licensing authority. These functions include the power to grant, vary, suspend or revoke a marine licence pursuant to sections 71 and 72 of the MCAA. Part 6 of the Bill will supplement existing charging powers at section 67 of the MCAA so as to enable the licensing authority, where the Welsh Ministers are the appropriate licensing authority, to charge fees for a broad range of applications and activities that they undertake as the appropriate licensing authority. This includes the ability to charge fees in relation to advice and assistance, monitoring the activities authorised by a marine licence and applications for the variation, transfer, suspension and revocation of a marine licence in certain circumstances.
285. Part 6 of the Bill makes provision for certain practical arrangements relating to the payment of fees including enabling the Welsh Ministers, as appropriate

licensing authority, to charge deposits, require payment in advance and the power to waive or reduce a fee. Part 6 of the Bill allows the Welsh Ministers to suspend, vary or revoke a licence where a fee, or a deposit on account of a fee, has been charged for any monitoring activity or for assessing and interpreting the results of an activity authorised by a licence and the fee or deposit has not been paid by the licensee. Where a fee or deposit on account of a fee is required to be paid in connection with an application by the licensee for a variation, suspension, revocation or transfer and the fee or deposit is not paid. Part 6 of the Bill allows the licensing authority to refuse to proceed with an application by the licensee for a variation, suspension, revocation or transfer of a licence, or to refuse to proceed until the fee or deposit is paid. In addition, where a deposit has been required to be paid by the licensee on account of a fee charged under section 67 (Applications) of the MCAA and the deposit is not paid. Part 6 allows the licensing authority to refuse to proceed with an application for a licence , or to refuse to proceed until the deposit is paid.

Section 76 - Advice and assistance in relation to marine licensing

286. Section 76 inserts a new section 67A into the MCAA which enables the licensing authority, where the Welsh Ministers are the appropriate licensing authority, to provide advice or other assistance and to recover the reasonable costs of doing so. An example of where this power might be used is the provision and recovery of costs relating to pre-application advice and assistance.

Section 79 - Appeal against variation etc of marine licence for non-payment of fee or deposit

287. Section 79 amends section 108 of the MCAA (Appeals against notices) to provide that the Welsh Ministers must by regulations make provision for persons to be able to appeal against a notice issued as a result of a non-payment of a fee or a deposit on account of a fee which has been charged for monitoring an activity authorised by a licence or for assessing and interpreting the results of any monitoring of an activity authorised by a licence.

Section 80 - Exceptions from power to delegate marine licensing authority functions

288. Section 80 amends section 98 (6) of the MCAA. Section 98 (1) of the MCAA enables the Welsh Ministers to delegate certain appropriate licensing authority functions to another person. Section 98 (6) of the MCAA lists excepted functions that cannot be delegated. Section 80 of the Bill adds certain functions of the appropriate licensing authority, which have been conferred pursuant to Part 6 of the Bill, to the list of excepted functions in section 98 (6) of the MCAA. As a result, the functions detailed in section 81(a) and (b) cannot be delegated pursuant to section 98 (1) of the MCAA.

Part 7 - Miscellaneous

Section 81 - Establishment of Flood and Coastal Erosion Committee for Wales

289. Section 81 of the Bill inserts new sections 26B – 26D into the Flood and Water Management Act 2010. These sections will require the Welsh Ministers to establish a committee to provide advice to the Welsh Ministers on matters

relating to flood and coastal erosion risk management in Wales. The committee will be known as the Flood and Coastal Erosion Committee or Pwyllgor Llifogydd ac Erydiad Arfordirol.

290. The Flood and Coastal Erosion Committee will be an advisory body with a remit to provide advice to the Welsh Ministers on matters relating to flood and coastal erosion risk management in Wales e.g. flooding from surface water, main rivers, ordinary watercourse, coastal flooding and coastal erosion.
291. New sections 26C and 26D will give the Welsh Ministers powers to make provisions, through regulations, about the membership and proceedings of the committee and payments to members and the chair.
292. The Flood and Coastal Erosion Committee will replace Flood Risk Management Wales, the current regional flood and coastal committee in Wales established under section 22 of the Flood and Water Management Act 2010. Section 81(2) will formally abolish the Flood Risk Management Wales.

Section 82 – Repeal of requirements to publish in local newspapers etc

293. This section repeals provisions of the Land Drainage Act 1991 which specify the way in which notices relating to Internal Drainage Boards (IDBs) must be published.
294. The current provisions require notices to be published in one or more local newspapers. The notices to which the requirements apply deal with matters such as alterations to internal drainage districts and the making of byelaws.
295. The changes will not remove the obligation to publish notices, but will mean that publication in a local newspaper is no longer required. This will provide for more flexible advertising arrangements and allow the IDBs and NRW to choose the most appropriate mechanism for distribution of notices, including electronic methods.

Section 83 - Valuation of non-agricultural land for apportionment of drainage expenses

296. This section addresses a technical issue relating to the valuation lists that are used to calculate drainage rates for non-agricultural land in an internal drainage district.
297. It provides the Welsh Ministers with powers to bring forward regulations to set out new arrangements for determining the value of land used in the calculation of these drainage rates.

Section 84 – Power to make provision for appeals against special levies

298. Recent changes have transferred all Internal Drainage Board functions in Wales to NRW. The effect of this is that NRW will raise special levies on local authorities to pay for part of these functions. These levies were previously raised by Internal Drainage Boards, where local authority appointed Members comprised a majority of the Board who set the levy.

299. This provision will amend section 75 of the Local Government Finance Act 1988 to enable the Welsh Ministers to put in place a mechanism for appeals by local authorities in the event that they believe the NRW levy is unreasonable.
300. The appeal would be to the Welsh Ministers in relation to special levies issued by NRW to meet expenses incurred in the exercise of functions relating to land drainage.

Section 85 Power of entry: compliance with order for cleansing ditches etc.

301. Section 85 of the Bill inserts in section 29 of the Land Drainage Act 1991 (LDA 1991) subsection (1A) which confers a power of entry on the Welsh Ministers or persons authorised by them.
302. Section 28 of the LDA 1991 provides that the Agricultural Land Tribunal (ALT) may grant an order to require a land owner or occupier (Respondent) to carry out work on his or her land to improve land drainage on a neighbour's land. If the Respondent fails to comply with the order, the Welsh Ministers or drainage body authorised by them, may rely on the power under section 29 to enter land to carry out the work required by the order and may recover the cost of doing so.
303. The new section 29(1A) confers a power on the Welsh Ministers or any person authorised by them to enter any land where it is necessary to do so to inspect whether an order has been complied with. The power may only be exercised after three months of the date of the order (or any longer period specified in the order) and where the Welsh Ministers have reasonable grounds for believing that the order has not been complied with.
304. Section 29(3), (4) and (5) of the LDA 1991 apply in relation to the power in section 29(1A). Section 29(3) makes provision about the taking of other persons and equipment on to the land and securing against trespassers; section 29(4) provides that the person entering the land must give no less than seven days' notice to the occupier; and section 29(5) makes provision for compensation if the person exercising the power causes anyone else to sustain any injury.
305. Section 85(2) has the effect of applying section 29(1A) to any order made under section 28, including those made before this provision comes into force.
306. The power would usually be exercised where the person who has the benefit of an ALT order complains to the Welsh Government that their land continues to suffer from poor drainage because the Respondent has not complied with the order.

Section 86 – Byelaws made by the Natural Resources Body for Wales

307. The Local Government Byelaws (Wales) Act 2012 changes the procedures for making byelaws in Wales and enables certain byelaws to be enforced by fixed penalty notices. It applies to byelaws made by local authorities and a number of other public bodies, including the Countryside Council for Wales (CCW). With effect from 1 April 2013, the Natural Resources Body for Wales (Functions) Order 2013 abolished CCW and transferred its functions to NRW. As a result, the

references to CCW in the 2012 Act need to be amended to refer to NRW. Those amendments are set out in Part 4 of Schedule 2 to the Bill, which is introduced by section 86.

Part 8 – General

308. This Part includes provisions relating to the interpretation, coming into force and short title of the Bill.

Section 87 – Interpretation

309. This section sets out some key terms referred to in the Bill. In particular, the definition of “Wales” is as in section 158(1) of the Government of Wales Act 2006 which defines it as including the sea adjacent to Wales out as far as the seaward boundary of the territorial sea – i.e. that it goes out to twelve nautical miles. It does not include the Welsh zone which is also defined in section 158(1).

Section 88 – Coming into force

310. Section 88 provides that Part 8 of the Bill comes into force on day that the Bill receives Royal Assent. Some provisions come into force at the end of two months after the Bill receives Royal Assent. These are: Part 1 (sustainable management of natural resources), Part 2 (climate change), Part 5 (fisheries for shellfish), section 83 (repeal of publication requirements), section 84 (appeals against special drainage levies), section 85 (power of entry) and section 86 (byelaws).

311. Other provisions of the Bill will come into force when the Welsh Ministers commence them by order. These are: Part 3 (charges for carrier bags), Part 4 (collection and disposal of waste), Part 6 (marine licensing), and section 82 (flood and coastal erosion committee).

Section 89 – Short title

312. This section describes the short title of the Bill. Once the Bill receives Royal Assent, it will be known as the Environment (Wales) Act 2016.

Schedule 1 – Charges for Carrier Bags: Civil Sanctions

313. This Schedule is introduced by section 61.

Civil Sanctions

314. Paragraph 1 provides that the carrier bag regulations may make provision that a person who breaches the regulations may be liable to civil sanctions. Sub-paragraph (3) provides that civil sanctions may take the form of fixed monetary penalties (defined in paragraph 2(3)) and discretionary requirements (defined in paragraph 4(3)).

Fixed Monetary Penalties

315. Paragraph 2 provides that the carrier bag regulations may give an administrator a power to impose a fixed monetary penalty not exceeding £5,000 on any person who breaches the regulations. Notices imposing fixed monetary penalties may only be issued in cases where the administrator is satisfied on the balance of probabilities that a breach of the regulations has occurred.

Fixed Monetary Penalties: Procedure

316. Paragraph 3 provides that where administrators have the power to issue fixed monetary penalty notices the regulations must set out the procedure as prescribed in this paragraph.
317. Sub-paragraph (1)(a) provides that before the administrator can impose a penalty they must first issue a 'notice of intent'. The notice must offer the person served the opportunity to either pay the penalty or make representations or objections within a specified time which in both cases must be no more than 28 days of when the notice was received (see sub-paragraphs (2)(e) and (f)). The notice must include the information as set out in sub-paragraphs (2)(a) to (f).
318. Under sub-paragraph (1)(b) the person served may discharge liability for the penalty by making a payment which may be less than or equal to the amount of the penalty. This would allow the administrator to offer a discount for early payment. If a payment is made no further action will be taken.
319. Under sub-paragraph (1)(c) the person served may make written representations and objections against the penalty. At the end of the specified time period, the administrator, having considered the representations or objections decides whether they impose the fixed monetary penalty. If they are still of the view that the penalty is due they may issue a "final notice". The final notice must include the information in sub-paragraphs (4)(a) to (f). If they decide to withdraw the penalty notice then under paragraph 3(3) they must explain why they have decided not to impose the penalty.
320. Sub-paragraph (5) sets out the circumstances in which a person served may appeal against a final notice. (See paragraph 10 for appeal procedure).

Discretionary Requirements

321. Paragraph 4 provides that the regulations may give an administrator the power to impose, by notice, one or more requirements ("discretionary requirements") on a person. "Discretionary requirements" are defined in sub-paragraph (3) as:
- the payment of a monetary penalty of an amount that the administrator will determine ("variable monetary penalty");
 - to take such steps as may be specified by an administrator within such time period as the administrator may specify to ensure that the incident of non-compliance does not continue or recur ("non-monetary discretionary requirement").
322. Sub-paragraph (2) specifies the standard of proof that must be applied by the administrators when deciding whether there has been a breach of the regulations. Under sub-paragraph (5) the regulations must provide that variable monetary penalties are capped to a maximum amount to be specified in, or determined in accordance with, the regulations.

(Discretionary requirements: procedure)

323. Paragraph 5 provides for the procedure that must be set out in regulations and followed by the administrator when imposing any discretionary requirement. An administrator must serve a notice on the person of their intention to impose a discretionary requirement. The notice must state the time within which the

person served may make representations and objections about the proposed sanction. The regulations may not provide for the time period to be any less than 28 days.

324. Sub-paragraph (c) provides that after the end of the specified time for making representations and objections, the administrator must decide whether to impose, withdraw or vary the discretionary requirement or replace it with a different discretionary requirement.
325. When imposing a discretionary requirement an administrator must serve a final notice. The final notice must contain the information set out in sub-paragraph (4), including the fact that the person's right of appeal against the sanction.
326. Sub-paragraph (5) sets out the minimum grounds for appeal against the discretionary requirement that must be available.

Discretionary requirements: enforcement

327. Paragraph 6 provides that where a person does not comply with a non-monetary discretionary requirement, the regulations may give an administrator power to impose a monetary penalty. Non-compliance penalties are not available in cases where a person has failed to pay a variable monetary penalty. Sub-paragraph (2) provides that the regulations may either specify the amount of the non-compliance penalty or that the amount may be determined in accordance with the regulations. Alternatively, sub-paragraph (3) provides that the regulations may specify a maximum penalty that an administrator may impose or the maximum amount as determined in accordance with the regulations. Sub-paragraph (5) provides that the regulations must state the grounds on which a non-compliance penalty may be appealed against which grounds are set out in (a) to (c).

Combination of sanctions

328. Paragraph 7 provides that the regulations must also include various requirements that administrators must comply with their powers to impose civil sanctions. The requirements are that where an administrator has served a notice of intent to impose a discretionary requirement they may not then impose a fixed penalty notice for the same breach.

Monetary Penalties

329. Paragraph 8 provides that where the regulations provide for civil sanctions to be imposed they may also make provision as set out in (a) to (c). They may include discounts for early payment or for the payment of interest or other financial penalty for late payment of the original penalty. Sub-paragraph (1)(b) provides that the total amount of any late payment penalty must not exceed the total amount of the penalty imposed.
330. Under sub-paragraph (1)(c) the regulations may include provisions to enforce the penalties. Under sub-paragraph (1)(c) an administrator may recover a penalty or other payment as may be specified in the regulations under sub-paragraph (1)(b) as a civil debt through the civil courts. It also allows the regulations to create a more streamlined process of recovery by treating the penalty as if it were payable under a court order.

Costs Recovery

331. Paragraph 9 provides that regulations may confer powers on the administrator to recover their costs, by notice, from a person on whom a discretionary requirement is imposed. Sub-paragraph (2) provides that the costs may include investigation costs, administration costs and the costs of obtaining expert (including legal) advice. Under sub-paragraph (3) where a costs notice is served the administrator may be required to give a detailed breakdown of the costs they are seeking to recover and that person served is not liable for any costs unnecessarily incurred.
332. Sub-paragraph (4) provides for the recovery of interest and late payment penalties and enforcement costs under paragraph 8. Sub-paragraph 3(d) provides for a right of appeal against the decision of the administrator regarding payment of costs.

Appeal

333. Paragraph 10 contains certain procedural provisions for appeals from civil penalties. In particular, it provides that appeals must be heard by the First-tier Tribunal (established under the Tribunals, Courts and Enforcement Act 2007 (c.15)) or another tribunal created under an enactment. Regulation 21 of the 2010 Regulations provides for appeals against civil sanctions to be made to the First-tier Tribunal..

Publicity for imposition of civil sanctions

334. Paragraph 11 provides that the regulations may confer a power on an administrator to issue a publicity notice to a person on whom a civil sanction has been imposed. Such a notice would require the recipient to publicise, at their own cost, that a sanction has been imposed, as well as such other information as may be specified in the regulations. If the person fails to publish the notice as required, the regulations may provide for the administrator to publish the notice and to recover the costs from the person to whom the notice relates.

Persons liable to civil sanctions

335. Paragraph 12 provides that the regulations may make provision for officers of a body corporate and partners of a partnership to be liable to civil sanctions.

Guidance about use of powers to impose civil sanctions and recover costs

336. Paragraph 13 provides that where an administrator is to have the power to impose civil sanctions, there is to be a corresponding duty on the administrator to publish guidance containing certain information about how it will use its civil sanction powers, including details about fixed monetary penalties and discretionary requirements such as: when they are likely to be imposed, how fixed and variable monetary penalties will be determined, how liability for penalties may be discharged and the effect of a discharge on rights of appeal.

Publication of enforcement action

337. Paragraph 14) provides that regulations providing for civil sanctions must secure the publication of reports by the administrator on the use of civil sanctions.

Compliance with regulatory principles

338. Paragraph 15 provides that civil sanction powers may not be conferred on an administrator in regulations unless the Welsh Ministers are satisfied that the administrator will comply with principles of better regulation as set out in (a) and (b).

Review

339. Paragraph 16 requires the Welsh Ministers to review the operation of the civil sanction provisions set out in regulations and that subsequent reviews must take place three years beginning with the date on which the previous review took place. This section also requires the Welsh Ministers to publish the results of the review and lay it before the National Assembly.

Suspension

340. Paragraph 17 provides the Welsh Ministers with the power to suspend an administrator's powers to impose civil penalties in certain circumstances by issuing a direction to the administrator. Such directions may be revoked by the Welsh Ministers. Before issuing a direction, the Welsh Ministers must consult the administrator and such other persons as it considers appropriate. Any directions issued must be laid before the National Assembly for Wales and brought to the attention of those that are likely to be affected by it.

Payment of penalties into Welsh Consolidated Fund

341. Paragraph 18 provides for money received from penalties to go to the Welsh Consolidated Fund established under section 117 of the Government of Wales Act 2006, into which is paid public money allocated to the devolved institutions in Wales by the UK Government and also that received from other sources.

SCHEDULE 2

Part 1: Sustainable management of natural resources

342. Part 1 of Schedule 2 makes a number of amendments and repeals in relation to Part 1 of the Bill.
343. Paragraphs 1 to 5 make a number of amendments as a consequence of sections 16, 17 and 23 of the Bill. Amendments are made to sections 15A, 16 and 21(4) of the National Parks and Access to Countryside Act 1949 (1949 Act), and sections 15A, 41, 45 and 47 of the Countryside Act 1968 (1968 Act) as a result of sections 16 and 17 of the Bill. These amendments have the effect of removing NRW's power to make land management agreements under these Acts but that agreements under the Bill are for the purposes of the 1949 Act a 'nature reserve agreement', for the 1968 Act a 'SSSI agreement'. Amendments are made to sections 28E, 28J, 32, 41, 50 and 51 of the Wildlife and Countryside Act 1981 (1981 Act) and also repeals the power under section 39 of the 1981 Act. Further amendments are made to the Road Traffic Regulations Act 1984 and the Water Industry Act 1991.
344. Paragraph 2(2) repeals section 4 of the 1968 Act, removing NRW's power to conduct experimental projects or schemes, which is now provided by section 23 of the Bill, which substitutes Article 10C of the Natural Resources Body for Wales (Establishment) Order 2012.

345. Paragraphs 6 to 9 make amendments to a number of Acts to create a link with relevant provisions in Part 1 of the Bill. Paragraph 6 amends the Environment Act 1995 to ensure that National Park authorities are required to have regard to the most recent state of natural resources report and any relevant area statement(s) when publishing, adopting or reviewing management plans under section 66 of that Act.
346. Paragraph 7 amends the Countryside and Rights of Way Act 2000 to ensure that in publishing, adopting or reviewing a management plan under section 89 of that Act, the relevant local authority or conservation board must have regard to the most recent stage of natural resources report and any area statement relevant to the area of outstanding natural beauty as appropriate.
347. Paragraph 8 amends the Planning and Compulsory Purchase Act 2004, to ensure that the NNRP is taken into account in the preparation of the National Development Framework and that in the preparation of Local Development Plans (LDP) regard must be had to any areas statements relevant to that LDP.
348. Paragraph 9 repeals section 40 of the NERC Act 2006 for public authorities to have regard to biodiversity conservation when carrying out functions in relation to Wales. In relation to Wales, section 6 of the Bill will apply to those public authorities.
349. Sub-paragraph (3) repeals section 42 of the NERC Act 2006 which requires the Welsh Ministers to prepare and publish a list of living organisms and habitats of principal importance for biodiversity in Wales. The requirement is now provided for by section 7 of the Bill. A number of further amendments are made to Schedule 11 of the NERC Act 2006 in sub-paragraph (4).
350. Paragraph 10 inserts a new paragraph into section 36(1) of the Well-being of Future Generations (Wales) Act 2015. The new paragraph will require Public Service Boards in preparing a local well-being assessment to take into account an area statement or statements published under section 10 of this Bill, which relate to any part of a local authority's area.
351. Paragraph 11 repeals paragraph 29 of Schedule 2 to the Planning (Wales) Bill. Paragraph 29 amended the definition of a public authority in section 40 of the NERC Act 2006. Section 6 of the Bill repeals section 40 of the NERC Act 2006 in relation to the functions of public authorities in relation to Wales and therefore paragraph 29 has no effect.

Part 2: Charges for carrier bags

352. Paragraphs 10 and 11 of Schedule 2 make consequential amendments to the Climate Change Act 2008 and the Waste (Wales) Measure 2010 which have the effect of disapplying, in relation to Wales, the provisions about single use carrier bags in Schedule 6 of the 2008 Act.

Part 3: Collection and disposal of waste

353. In Part 3 of Schedule 2, paragraph 14 makes consequential amendments to the Environmental Protection Act 1990, as a result of the insertion of a new section 45AA. Sub-paragraph (2) has the effect of making section 45A of that Act applicable to England only, and sub-paragraph (3) repeals section 45B.
354. Paragraph 15 repeals section 2 of the Household Waste Recycling Act 2003, which inserted section 45B into the Environmental Protection Act 1990.
355. Paragraph 16 repeals a transitional provision in Schedule 11 of the Government of Wales Act 2006, relating to section 45B of the Environmental Protection Act 1990.
356. Paragraph 17 makes consequential amendments to the Waste (Wales) Measure 2010, as a result of the insertion of a new section 9A.

Part 4: Flood and coastal erosion committee

357. Section 82(3) and Part 4 of Schedule 2 makes minor and consequential amendments to update relevant legislation where such legislation contains references to Regional Flood and Coastal Committees in Wales. The amendments reflect changes to the name of the Committee or changes that are necessary to reflect the remit of the new Committee.

Part 5: Byelaws

358. In Part 4 of Schedule 2, paragraphs 26 and 27 make amendments to the National Parks and Access to the Countryside Act 1949 and the Countryside Act 1968, both of which contain provisions relating to CCW's byelaw making functions.
359. In Part 4 of Schedule 2, paragraph 28 makes a number of amendments to the Local Government Byelaws (Wales) Act 2012 that removes all references to CCW and replaces them with references to NRW.
360. Sub-paragraph 2 does so in the section defining which bodies are legislative authorities and have powers to make byelaws for the purposes of the Act. Sub-paragraphs 3 and 4 do so in sections dealing with the procedures and formalities for making byelaws.
361. Sub-paragraph 5 repeals paragraph 11 of Schedule 2 to the Act, in relation to the Wildlife and Countryside Act 1981.