



Ein cyf/Our ref: LF CS 0704 15

Jocelyn Davies AM
Chair of the Finance Committee
National Assembly for Wales
Cardiff Bay
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28 July 2015

Dear *Jocelyn*

Environment (Wales) Bill

At my evidence session at the Finance Committee held on 9 July, I agreed to provide further information on a number of issues in relation to the Environment (Wales) Bill. I have set out below a response to each.

1. Examples of the economic benefits

During the evidence session you enquired about the approach taken in the Regulatory Impact Assessment (RIA), I believe the following information helps to respond to your queries.

The Committee asked about the presentation of the costs and benefits in the RIA and in particular, that benefits are displayed alongside the costs and also whether costs have been offset by benefits. I do not believe this is the case with the Environment Bill; the RIA clearly sets out the estimated costs and benefits separately. Both the research commissioned to inform the RIA and the RIA itself have been produced in accordance with HM Treasury 'Green Book' guidance on appraisal in central government.

In particular, the RIA sets out a summary of the costs and benefits included for each part of the Bill and also for the Bill as a whole. The RIA estimates the overall costs to be £291m with estimated benefits of £359m and therefore the net benefit is approximately £68m (all figures are given as present value over 10 years).

The Committee asked for details of how the benefits have been measured in the RIA. As requested, I have set out below some examples to explain how the benefits have been estimated, but this is not intended to be a full analysis.

Part 1: Sustainable Management of Natural Resources

The main potential benefit that has been assessed as having a significant impact is the contribution towards the improved resilience of Wales' ecosystems.

Research¹ suggests 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'. 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 level of values involved, these assessments are included in the RIA for illustrative purposes. However, attempts to calculate changes in value more precisely were not considered robust, therefore, were not included in the overall figure for the benefit of the Bill.

It is anticipated that the qualitative benefits expected as a result of the Bill will add to the figure estimated in the RIA for the Bill as a whole. The RIA sets out the way in which the proposals are anticipated to improve the resilience of Wales' ecosystems, including benefits for communities and the environment.

Part 4: Collection and Disposal of Waste

In terms of monetised benefits, the benefits in relation to the collection and disposal of waste have been more precisely measured due to the availability of evidence at this stage (refer to pg. 238 to pg.244 in the RIA). As noted in the RIA, the assessment of costs and benefits for Part 4 is based on research undertaken by Eunomia Research & Consulting Ltd using their in-house waste flow model.

In present value terms, the estimated costs for the waste provisions of the Bill are £159 million over 10 years with benefits of £218 million.

The figures for the monetised benefits were derived as follows:

Waste Management Businesses

Materials revenue: £70.74m PV

Avoided Landfill Tax: £172.46m PV

The Eunomia model compares the likely treatment of waste streams under the baseline ('Do Nothing') scenario with that under the proposed policy to generate estimates of the additional capital expenditure and ongoing operating costs associated with waste collection, waste treatment costs, revenue from the sale of recyclable materials and the volume of waste going to landfill (and therefore landfill tax).

As outlined in the RIA, waste management 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 recyclable materials. However, 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.

¹ 52Bringing 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>

I would ask the Committee to note that while the reduction in landfill tax represents a benefit to waste management businesses in Wales, there is a corresponding cost to the Exchequer. This figure is therefore not included in the £218 million figure above.

Sewerage Authorities

Avoided Water Treatment Costs: £7.08m PV

The ban on the disposal of food waste to sewers is expected to generate savings to Sewerage authorities through:

- a reduction in the blockage of and damage to sewerage systems
- avoidance of costs of treating effluent from macerators

Based on current costs and the expected reduction in the volume of food waste entering the sewerage system, the benefits to sewerage authorities are estimated to be between £530,000 and £884,000 per annum

Environmental Benefit

Monetised Environmental Costs: £139.77m PV

The figures for the monetised environmental benefits were derived as follows:

It is estimated that a ban on the incineration and landfilling of certain materials will see environmental benefits. The monetised environmental benefit presented above is 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.

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.

Additional research has shown that large reductions in greenhouse gas emissions can be achieved against the current baseline by diverting priority materials from landfill to recycling.

To give one example the carbon saving from improving the 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.

Job Creation

The RIA also sets out a number of other benefits as a result of Part 4 of the Bill, including the potential for job creation. Further information is set out below, however, these have not been monetised for the purpose of the RIA.

High levels of recycling are predicted to result to increase employment in Wales. It is estimated, by the Skills Sector Council, that in Wales there are around 7,850 people employed in the waste management industry. Research shows that 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.

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).

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 landfilling.

Part 3: Charges for Carrier Bags

Extending the Welsh Ministers powers to enable them to set a charge on other types of carrier bags:

- Total costs are £123.75 million over 10 years compared to total benefits of £132.02 million. These figures are derived from the research undertaken by Ricardo AEA and the Welsh Government. They can be broken down as follows:
 - Costs: £8.25 million to manufacturers (reduction in the number of single use carrier bags being purchased) and £115.50 million to consumers (based on the preferred charging option for "bags for life").
 - Benefits: £37.66 million in retailer revenue, £80k to wholesalers and £66.76 million increase in charitable donations.
 - Other: £19.25 million through an increase in tax revenue and £8.27 million in environmental impact (for example a reduction in littering, carbon emissions and air pollution).

A duty on retailers to donate the proceeds from the sale of carrier bags to good causes:

- Quantified costs are £1.2million over 10 years compared to benefits of £8.7million. These figures are derived from the RIA work undertaken by Ricardo AEA and the Welsh Government. They can be broken down as follows:
 - Costs: £800k for businesses (in relation providing two "returns" per annum) and £400k for monitoring and enforcement (as a mandatory agreement is being introduced).
 - Benefits: This is made up of £4.79 million in increased revenues for environmental charities and £3.92 million in increased revenues for non-environmental charities.

The figures for the environmental benefits are based on 'bottom-up' modelling undertaken by Ricardo AEA which looked at the relative CO₂ and air quality impacts associated with manufacturing the different types of carrier bag and also the relative littering/disposal impacts associated with each type of bag.

These impacts were then aggregated up to reflect the number of the various bag types purchased under each option. The remaining benefits reflect the redistribution of the revenue from the additional carrier bag charge (which is a cost to consumers) between retailers, wholesalers, charities and the exchequer. Again, this is based on the modelling work undertaken by Ricardo AEA.

2) The costs that may fall on local authorities and others if something goes into the recycling waste stream, but then ends up in landfill

The Bill is aimed at businesses and the public sector rather than households.

The cost of disposal of contaminants from the recycling stream would not be incurred by either waste management companies, or by local authorities, who operate their commercial waste services on a full cost recovery basis. The cost would be passed to the business waste producers by the local authorities or waste management businesses that collect their waste. This will incentivise greater quality of recycling by waste producers in order to reduce business costs.

3) What the 1 per cent inspection figure of business premises by Natural Resources Wales is based upon

The 1% figure is an indicative estimate for modelling purposes.

NRW inspects premises on a risk and intelligence led basis. It is expected that it will target businesses producing larger amounts of waste, those producing priority waste materials or those that intelligence leads them to suspect are breaching legislative requirements. The 1% figure was discussed with NRW and settled on as an adequate and appropriate level of inspection for the modelling. The figure takes into account:

- the parallel duty placed on waste collection companies and local authorities to collect recyclable wastes from their business customers by means of separate collection, which will result in the collection agents themselves requiring their customers to segregate their wastes for collection;
- the reasonable expectation that the majority of businesses seek to comply with their legal obligations.

4) A copy of the letter to the Chair of the Environment and Sustainability Committee in relation to a timetable for publishing the secondary legislation relating to the Bill

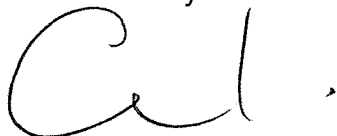
The timetable you requested is provided at **Annex 1**.

This table has been updated since it was originally provided to the Environment and Sustainability Committee in my letter of 17 June 2015. These changes are the result of emerging evidence and are as follows:

Indicative dates by which the Welsh Ministers make regulations on fees for the marine licensing regime, under sections 78 to 80 of the Bill, have been amended. The intended date for introduction of new fees, by which time the regulations will need to be made is April 2017, which is being driven by the ongoing marine licensing fees review. The rationale for this includes a number of factors; Royal Assent of the Bill, Assembly elections in 2016 and the fees review.

I hope that you find this helpful. If you would like any further information on the Bill, please contact me. I am copying this letter to the Chair of the Environment and Sustainability Committee.

Yours sincerely

A handwritten signature in black ink, appearing to be 'C. Sargeant', written in a cursive style.

Carl Sargeant AC / AM

Y Gweinidog Cyfoeth Naturiol

Minister for Natural Resources

CC: Alun Ffred Jones AM, Chair of the Environment and Sustainability Committee

Annex 1

Forward look: Anticipated commencement and subordinate legislation dates

This Annex sets out the dates by which it is expected that the provisions of the Bill will be commenced, and dates by which it is anticipated that powers conferred on the Welsh Ministers to make subordinate legislation would be exercised. It may be most helpful to read it alongside the Statement of Policy Intent.

Date	Milestone	Notes
March 2016	-- Anticipated date of Royal Assent, subject to the will of the Assembly --	
May 2016	Commencements two months after Royal Assent.	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); section 86 (byelaws).
May 2016	-- Elections to the National Assembly for Wales --	
Q3 2016	The Welsh Ministers abolish the Regional Flood and Coastal Committee and establish Flood and Coastal Erosion Committee.	Under section 82 of the Bill and sections 26B, 26C, and 26D of the Flood and Coastal Management Act 2010, as inserted by section 82 of the Bill.
September 2016	NRW publish first SoNaRR.	Under section 8 of the Bill.
January 2017	Earliest time that the Welsh Ministers would consider making regulations for the separate collection of waste.	Under section 45AA of the Environmental Protection Act 1990, as inserted by section 66 of the Bill.
January 2017	Earliest time that the Welsh Ministers would consider making regulations prohibiting disposal of food waste to sewer.	Under section 34D of the Environmental Protection Act 1990, as inserted by section 67 of the Bill.
January 2017	Earliest time that the Welsh Ministers would consider making regulations prohibiting or regulating disposal of waste by incineration.	Under section 9A of the Waste (Wales) Measure 2010, inserted by section 68 of the Bill.
March 2017	The Welsh Ministers publish NNRP.	Under section 9 of the Bill.

April 2017	Indicative date by which the Welsh Ministers make regulations on fees for monitoring, variation etc. of marine licenses.	Under section 72A of the Marine and Coastal Access Act 2009, as inserted by section 78 of the Bill.
April 2017	Indicative date by which the Welsh Ministers make regulations on further provisions for the payment of fees for marine licenses.	Under section 107A of the Marine and Coastal Access Act 2009, as inserted by section 79 of the Bill.
April 2017	Indicative date by which the Welsh Ministers make regulations on appeals against variation etc. of marine licenses for non-payment of fees or deposits.	Under section 108(2A) of the Marine and Coastal Access Act 2009, as inserted by section 80 of the Bill.
May 2017	Indicative date for publication by the Welsh Ministers of guidance about implementing area statements.	Under section 13 of the Bill. It is intended that the guidance would be provided as soon as possible after the Bill receives Royal Assent.
May 2017	Regulations to define the meaning of carbon units.	Under section 36 of the Bill. It is intended that these regulations would be made as soon as reasonably practicable after receiving Royal Assent, having received advice from the advisory body.
December 2018	Time by which the Welsh Ministers must publish the carbon budgets for the net Welsh emissions account for the period 2016-2020 and 2020-2025.	Under section 31 of the Bill.
January 2020	Time by which the Welsh Ministers must publish the carbon budget for the net Welsh emissions account for the period 2025-2030.	Under section 31 of the Bill.
December 2020	NRW publish second SoNaRR.	Under section 8 of the Bill.
May 2021	-- Elections to the National Assembly for Wales --	
June 2021	The Welsh Ministers begin first review of NNRP.	Under section 9 of the Bill.
January 2025	Time by which the Welsh Ministers must publish the carbon budget for the net Welsh emissions account for the period 2030-2035.	Under section 31 of the Bill.

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| January 2030 | Time by which the Welsh Ministers must publish the carbon budget for the net Welsh emissions account for the period 2035-2040. | Under section 31 of the Bill. |
| January 2035 | Time by which the Welsh Ministers must publish the carbon budget for the net Welsh emissions account for the period 2040-2045. | Under section 31 of the Bill. |
| January 2040 | Time by which the Welsh Ministers must publish the carbon budget for the net Welsh emissions account for the period 2045-2050. | Under section 31 of the Bill. |

