

Towards Zero Waste

**The Post Adoption Statement of the
Sustainability Appraisal**

June 2010

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CONTENTS

1	INTRODUCTION	1
1.1	THE WALES WASTE STRATEGY	1
1.2	THE SUSTAINABILITY APPRAISAL (SEA/SA) OF THE STRATEGY	2
1.3	THE PURPOSE OF THE POST ADOPTION STATEMENT (PAS)	2
1.4	THE STRUCTURE OF THE PAS	3
2	HOW ENVIRONMENTAL AND WIDER SUSTAINABILITY CONSIDERATIONS HAVE BEEN INTEGRATED INTO THE STRATEGY	4
2.1	THE SEA/SA PROCESS: SCOPING	4
2.2	THE SEA/SA PROCESS: ASSESSMENT	4
2.3	HOW THE SEA/SA REPORT HAS BEEN TAKEN INTO ACCOUNT	5
2.4	THE SEA/SA PROCESS: FINAL REPORTING	6
3	OPINIONS EXPRESSED IN RESPONSE TO CONSULTATION & HOW THESE HAVE BEEN TAKEN INTO ACCOUNT	7
3.1	OVERVIEW OF CONSULTATION RESPONSES ON THE STRATEGY	7
3.2	OVERVIEW OF CONSULTATION RESPONSES ON THE SEA/SA REPORT	7
3.3	CHANGES MADE TO THE STRATEGY ON THE BASIS OF THE CONSULTATION PROCESS	8
4	REASONS FOR CHOOSING THE WALES WASTE STRATEGY AS ADOPTED IN THE LIGHT OF THE REASONABLE ALTERNATIVES DEALT WITH	9
4.1	DEVELOPMENT OF THE REVISED STRATEGY: STRATEGY ALTERNATIVES CONSIDERED	9
4.2	REASONS FOR THE ADOPTION OF THE STRATEGY	10
4.3	POST-CONSULTATION: FINALISING THE PREFERRED OPTION	12
5	THE MEASURES THAT ARE TO BE TAKEN TO MONITOR THE SIGNIFICANT ENVIRONMENTAL AND WIDER SUSTAINABILITY EFFECTS OF THE IMPLEMENTATION OF THE WALES WASTE STRATEGY	13
5.1	SUMMARY OF MONITORING	13
ANNEX A	SUMMARY OF CONSULTATION COMMENTS ON THE SUSTAINABILITY APPRAISAL AND RESPONSES	
ANNEX B	ADDITIONAL COMMENTARY ON SUSTAINABILITY APPRAISAL	

This document comprises the Post Adoption Statement (PAS) required by Regulation 16 (1) & (4) of the Environmental Assessment of Plans and Programmes Regulations (Wales) 2004, otherwise known as the SEA Regulations. Regulation 16 sets out the requirements for 'Post-Adoption Procedures' to accompany the publication of Towards Zero Waste, the overarching waste strategy document for Wales, these procedures being fulfilled through the publication of this document.

1.1

THE WALES WASTE STRATEGY

The Welsh Assembly Government (WAG) has developed a new overarching waste strategy document for Wales which establishes the vision for achieving more sustainable waste management within, and across, the country. Towards Zero Waste builds upon the previous waste strategy document, 'Wise about Waste', which was launched in 2002.

Wise about Waste introduced the concept of resource productivity and the need to fulfil sustainable development objectives, including reducing waste's impact on climate change. By necessity, the Strategy placed a significant focus on the requirements of the EC Landfill Directive, in particular municipal waste, whilst addressing alternative waste streams to varying extents. The new Strategy, Towards Zero Waste, further develops these issues, providing greater elaboration upon key challenges and establishing specific outcomes in the areas of sustainable development, climate change and Ecological Footprinting.

Towards Zero Waste, therefore, augments the agenda set out in the former document, integrating ambitious targets for waste reduction, recycling and ultimately elimination of landfill. The key outcomes of the Strategy are:

- A sustainable environment where the impact of waste in Wales is reduced to within our environmental limits (one planet levels of waste) by 2050.
- A prosperous society, with a sustainable, resource efficient economy
- A fair and just society, in which all citizens can achieve their full human potential and contribute to the wellbeing of Wales through actions on waste prevention, reuse and recycling.

Further detail on the approach and contents of the new Strategy, including the revised Strategy itself, is available at:

http://wales.gov.uk/topics/environmentcountryside/epq/waste_recycling/?jsessionid=1LwjLMvGGmZj3C4KMrpjPbwvG4ppVVL8LJRrPyB1T1F071N9fQpW!-330498905?lang=en

During preparation of the draft strategy document and in pursuance of its commitment to progressing sustainable development, the Assembly Government commissioned a Sustainability Appraisal, incorporating a Strategic Environmental Assessment (SEA/SA) of the draft strategy document. This process has been documented within the Sustainability Appraisal Report which is available at:

<http://wales.gov.uk/docs/desh/publications/090429wastesustainabilityreporten.pdf>

A summary of this process is also included within Chapter 2 of this document.

THE PURPOSE OF THE POST ADOPTION STATEMENT (PAS)

The preparation of a PAS is a requirement of the SEA Regulations governing the undertaking of SEA for a statutory plan. Regulation 16 (4) of the SEA Regulations (2004) requires that a statement is prepared, following the adoption of the strategy document, and the publication of the SEA/SA, containing the following particulars:

- 16.4 (a) how environmental considerations have been integrated into the plan or programme.
- 16.4 (b) how the environmental report has been taken into account.
- 16.4 (c) how opinions expressed in response to
 - the invitation referred to in Regulation 13(2) (d)¹
 - action taken by the responsible authority in accordance with Regulation 13(4) have been taken into account.
- 16.4 (d) how the results of any consultations entered under Regulation 14 have been taken into account.
- 16.4 (e) the reasons for choosing the plan or programme as adopted, in the light of the other reasonable alternatives dealt with
- 16.5 (f) the measures that are to be taken to monitor the significant environmental effects of the implementation of the plan or programme.

Table 1.1, below, explains where these requirements are addressed in this PAS.

¹ Regulation 13 (2) (d) states 'invite the consultation bodies and the public consultees to express their opinion on the relevant documents, specifying the address to which, and the period within which, opinions must be sent.

Table 1.1 *Where the SEA Regulations Requirements are Addressed in the PAS*

SEA Regulations Requirement	Where This is Addressed in the PAS
16.4 (a) how environmental considerations have been integrated into the plan or programme.	2
16.4 (b) how the Environmental Report has been taken into account.	2
16.4 (c) how opinions expressed in response to - (i) the invitation referred to in Regulation 13(2)(d) (ii) action taken by the responsible authority in accordance with regulation 13(4) have been taken into account.	3
16.4 (d) how the results of any consultations entered under regulation 14 have been taken into account.	3
16.4 (e) the reasons for choosing the plan or programme as adopted, in the light of the other reasonable alternatives dealt with.	4
16.4 (f) the measures that are to be taken to monitor the significant environmental effects of the implementation of the plan or programme.	5

1.4 *THE STRUCTURE OF THE PAS*

The PAS is structured in accordance with the requirements of the SEA Regulations, as identified in *Table 1.1* above, and addresses the following:

Chapter 2 How Environmental and Wider Sustainability Considerations Have Been Integrated into Towards Zero Waste.

Chapter 3 Consultation – Opinions Expressed in Response to Consultation & How These Have Been Taken Into Account.

Chapter 4 Reasons for Choosing the Strategy Document as Adopted in the Light of the Reasonable Alternatives Dealt With.

Chapter 5 The Measures That Are To Be Taken to Monitor the Significant Environmental and Wider Sustainability Effects of the Implementation of the Strategy.

In fulfilment of Regulation 16.4 (a) and (b), this Chapter sets out how the SEA/SA has been integrated into the development of Towards Zero Waste, including how the principal output of the SEA/SA, the Sustainability Appraisal Report, has been taken into account in determining the content of the document.

2.1 THE SEA/SA PROCESS: SCOPING

The SEA/SA process began in September 2008 with the development of a Scoping Report which set out the context and methodology for undertaking the SEA/SA. This was published in September 2008 and disseminated to the three SEA statutory consultees, Cadw, Countryside Council for Wales (CCW) and Environment Agency Wales (EAW), for consultation.

The outputs of the consultation process were reviewed and resulting in the following actions being taken:

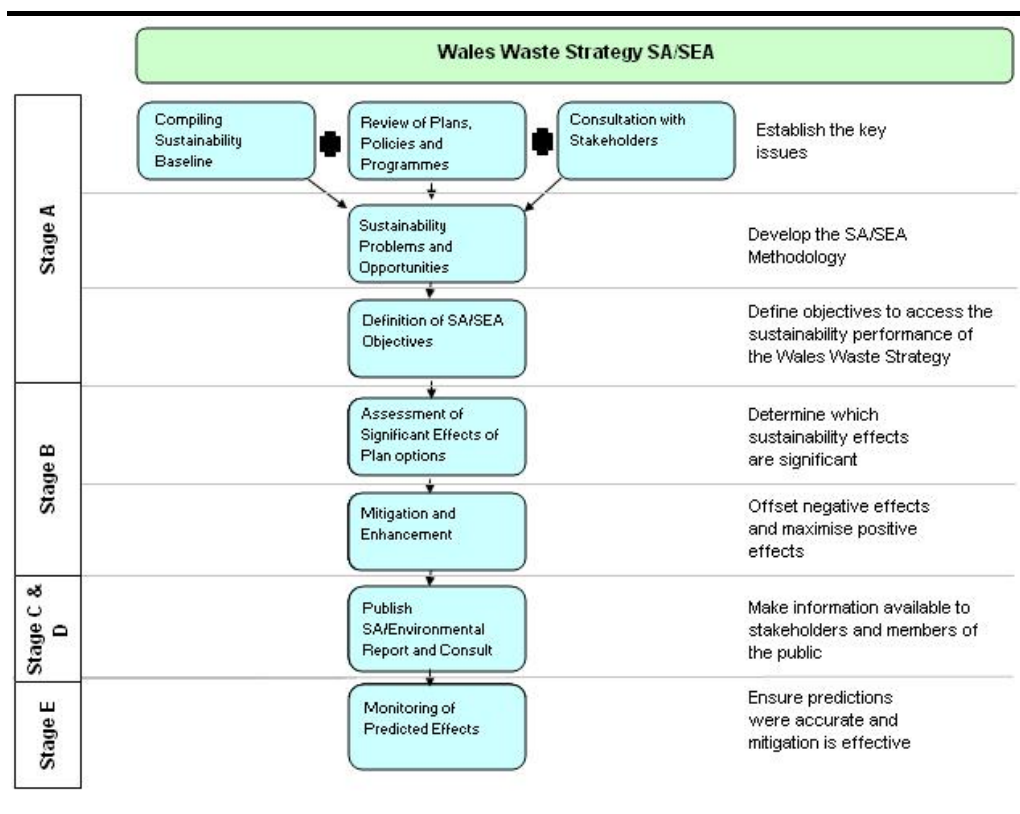
- Finalising the Sustainability Appraisal Framework
- Finalising the review of the Policies, Plans and Programmes
- Finalising the baseline data collation
- Using issues raised to inform the subsequent assessment.

2.2 THE SEA/SA PROCESS: ASSESSMENT

The assessment of the possible strategic options to be considered in drafting the Strategy was an iterative process undertaken from the commencement of the process until the publication of the Report in May 2009.

Figure 2.1 below illustrates the key steps in the SEA/SA process. This is timed and undertaken in a manner ensuring interactions and information exchanges between the SEA/SA and the Strategy teams over the timescale of the preparation of the Strategy.

Figure 2.1 *The Flow of Stages in the Sustainability Appraisal Process*



Through preliminary assessment, constructive challenge and ongoing review of the iterations of the Strategy, environmental and wider sustainability considerations were identified and integrated into the document as a result of the SEA/SA.

The SEA/SA assessed the overall effect of policies and proposals within Towards Zero Waste against the whole range of environmental sustainability objectives included in the assessment framework. In this way, the SEA/SA ensured the strategy document, in contributing to the achievement of one sustainability objective, could also contribute in an integrated way to achieving other sustainability objectives.

Equally, where policies and proposals aimed at fulfilling one sustainability objective could potentially conflict with another objective, this was identified so that it could be taken into account in developing the strategy document.

2.3 *HOW THE SEA/SA REPORT HAS BEEN TAKEN INTO ACCOUNT*

The SEA/SA process described above provides the means by which the drafting of Towards Zero Waste has been positively influenced by considerations of environmental and wider sustainability. The SEA/SA Report, reports the outcome of this process, setting out for stakeholders and statutory consultee bodies the findings of the assessment of the strategy document.

There are 3 key mechanisms through which the SEA/SA process and subsequent Report has been taken into account in developing the contents of Towards Zero Waste, these being through:

- Review by the statutory consultees and their expression of opinion based on the SEA Environment Report, and the strategy document which it accompanies. The SEA/SA Report, accompanying the Strategy, was the subject of consultation with the SEA statutory consultees Cadw, Countryside Council for Wales (CCW) and Environment Agency Wales (EAW), and wider stakeholder and public consultees. The responses to consultation were informed by the SEA/SA Report and have been taken into account in determining the content of Towards Zero Waste, as explained in Chapter 3 of the Sustainability Appraisal Report; these responses will also be taken forward in the development of the sector plans.
- Recommendations for enhancement and mitigation which the statutory consultees have expressed their opinions on through consultation on the SEA/SA Report and the strategy document. Chapter 8 of the SEA/SA Report contains recommendations for enhancement and mitigation being taken account by WAG in the implementation and delivery of the policies and proposals contained in Towards Zero Waste. These responses will also be taken forward in the development of the sector plans.
- The identification of measures for monitoring the significant environmental and wider sustainability effects of the implementation of Towards Zero Waste. Suggestions for additional monitoring in line with the monitoring indicators listed in Towards Zero Waste were set out in the SEA/SA Report and will be taken forward in the development of the sector plans.

2.4 *THE SEA/SA PROCESS: FINAL REPORTING*

This PAS has been produced following a review of consultation responses from the public, the statutory consultees and other stakeholders on the strategy document and SEA/SA report.

3 **OPINIONS EXPRESSED IN RESPONSE TO CONSULTATION & HOW THESE HAVE BEEN TAKEN INTO ACCOUNT**

In fulfilment of Regulation 16.4 (c) and(d), this Chapter summarises the opinions received through consultation on the SEA/SA and the strategy document, and explains how these opinions have been taken into account in determining the final content of the Wales Waste strategy document.

3.1 **OVERVIEW OF CONSULTATION RESPONSES ON THE STRATEGY**

A separate report¹, *Welsh Assembly Government – 'Towards Zero Waste': A consultation on a new Waste Strategy for Wales: **The Welsh Assembly Government's Response to the Issues Raised in the Consultation*** details the consultation process undertaken on the strategy document and associated responses to this. This report is available on:

<http://wales.gov.uk/consultations/environmentandcountryside/wastestrategy/?lang=en>

3.2 **OVERVIEW OF CONSULTATION RESPONSES ON THE SEA/SA REPORT**

The SEA Regulations require that the 3 statutory 'consultation bodies' for SEA are specifically consulted along with public consultees, on both the Strategy and a report on the assessment of its likely significant effects, the SEA/SA Report.

Opinions were expressed by the three statutory consultee bodies on the SEA/SA Report, as well as by wider public consultees. These included advice and commentary on subjects such as the assessment framework, consultation programme and strategy development.

Broadly, these comments related to:

- The Appraisal objectives;
- Baseline information and the review of policies, plans and programmes;
- The options assessed;
- The nature and approach to the assessment;
- Mitigation and enhancement requirements;
- Compliance with the SEA Directive.

The summary of these comments received, and importantly responses to these comments, are provided in detail within Annex A. This also details how the

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issues raised within consultation, will be considered as appropriate, within the forthcoming Sustainability Appraisals of the Sector Plans.

3.3

CHANGES MADE TO THE STRATEGY ON THE BASIS OF THE CONSULTATION PROCESS

On the basis of the responses to the Draft Strategy and its Sustainability Appraisal, WAG made the following key changes to the Strategy:

- Clarification of the definition of zero waste, ecological footprinting and one planet living
- Clarification of the delivery context
- Further detail and context on the headline indicators for social, economic and environmental indicators
- Reinforcing the role of waste prevention activity
- Re-expression of the waste prevention targets from ecological footprint prevention targets to tonnage waste reduction targets, with further consultation in the sector plans
- Adoption of a 70% recycling target for commercial and municipal (as collected by local authorities) waste
- Removal of the municipal food waste collection target, with further consultation proposed in sector plans
- Removal of the 150kg residual waste target for municipal waste
- Adoption of the recycling target for construction and demolition waste
- Adoption of the energy from waste cap for municipal waste
- Additional use of best practice case studies
- Clarification of the requirements of the Waste Framework Directive
- Update on current waste management figures.

These changes are incorporated into the revised Towards Zero Waste strategy, which this document, the Post Adoption Statement accompanies.

REASONS FOR CHOOSING THE WALES WASTE STRATEGY AS ADOPTED IN THE LIGHT OF THE REASONABLE ALTERNATIVES DEALT WITH

In fulfilment of Regulation 16.4 (e), this Chapter summarises the alternatives considered in developing the Strategy and the reasons for choosing the Strategy in its adopted form in light of these alternatives.

4.1

DEVELOPMENT OF THE REVISED STRATEGY: STRATEGY ALTERNATIVES CONSIDERED

During the course of the evolution of the Strategy, the drafting team examined strategic options exploring the vision and delivery of sustainable waste management across Wales.

In line with Regulation 16.4 (e), the following sections explain the reasons for choosing the Strategy, in light of the alternatives dealt with. Five strategic policy options or alternatives (hereafter referred to as “Options”) were put forward for the Strategy, as detailed in Chapter 2 of the Sustainability Appraisal Report. These Options formed the basis of research commissioned and informed the Assembly Government’s thinking on the selection of the Preferred Option.

These Options are primarily based on the rate of recycling and composting targets to be established across sectors and have been considered for the purpose of assessment within the Appraisal. The Options set out a range of recycling targets for MSW, C & I waste and C & D waste, and limits on the volume of waste which can be processed through Energy from Waste (EfW) facilities¹. The key features of each of the five Strategy Options considered are as follows:

Option 1 – ‘Baseline: Do Minimum’/ ‘status quo’

- 40% recycling and composting of municipal solid waste (MSW)
- No target set for Commercial & Industrial (C&I) waste
- No target set for Construction & Demolition (C&D) waste
- No mandatory requirement for waste reduction or re-use beyond the 40% target
- No targets or limits on the amount of waste processed through Energy from Waste (EfW) facilities
- Engagement of industrial and commercial waste stakeholders but limited capacity to control or manage waste arising from these sources

(1) ¹ The development of the options and use of EfW as a residual treatment, took into account the SWMO Appraisal for the revision of the Regional Waste Plans.

Option 2

- 50% recycling and composting of MSW
- 50% recycling and composting of C&I waste
- 50% recycling and composting of C&D waste
- Residual waste (50% of total) disposed of by a combination of landfill and EfW

Option 3: Escalating Commitments

- 60% recycling and composting of MSW
- 60% recycling and composting of C&I waste
- 60% recycling of C&D waste
- Up to 30% limit on EfW for MSW
- Prescription of a certain amount of waste to landfill
- A focus on creating a culture of sustainable management of MSW

Option 4 – The Preferred Option

- Minimum 70% recycling and composting of MSW
- 70-75% recycling and composting of C&I
- 90% recycling, recovery and re-use of C&D
- Up to 30% EfW
- Down to maximum of 5% to landfill by 2024/25 of MSW
- Aspiration of moving towards zero waste by 2050
- A suite of Ecological Footprint reduction targets

Option 5 – ‘Zero Waste’

- Eliminating waste generation at source from across all sectors
- 80% - 100% recycling & composting of MSW, C&I and C&D waste by 2025
- Aspiring to achieve a ‘Zero Waste’ society by 2025

As previously noted, the sustainability performance of these options was reported. Consideration of their respective merits led to the identification of the Preferred Option, the Strategy.

4.2

REASONS FOR THE ADOPTION OF THE STRATEGY

4.2.1

Comparative Benefits

The assessment of the Options identified significant potential impacts or benefits, as well as potential negative impacts, relative to the key sustainability challenges set out in the Appraisal Framework. What emerged was a relatively consistent picture of the respective merits of each Option in terms of progressing more sustainable waste management and reducing Wales’ Ecological Footprint, key aspirations set out for the emergent Strategy.

Options 1 and 2 were considered potentially inadequate in effecting *the nature* of change necessary to realise the clear policy objectives of the Strategy and waste management policy for Wales. In the same vein, Option 3 was

considered to give rise to many projected positive impacts but the *scale of change* it could potentially achieve was judged less than that of Option 4 and 5. Whilst Option 5 was recognised as effectively creating a paradigmatic shift in waste management across Wales, it scored less positively with respect to the *potential feasibility* of achieving the ambitious targets established under this Option.

The following sets out the summary of assessment of the Preferred Option, Option 4, as set out in the Sustainability Appraisal Report:

4.2.2 *Summary of 'Option 4: The Preferred Option'*

The Preferred Option represents an ambitious target and should significantly move waste up the waste management hierarchy in line with, and exceeding, national, UK and European policy. It represents a substantive shift in terms of both historic and current waste management practice and unquestionably signals the advent of progressive, more sustainable waste management across the country. The sustainability benefits of the Preferred Option were felt to be potentially significant, not least with respect to the environmental and ecological benefits which can accrue from such a significant diversion of waste from landfill.

The Preferred Option provides the opportunity to significantly reduce reliance on landfill through reducing waste generation and providing for alternate forms of waste management such as recycling. This has the potential to induce significant environmental and ecological benefits both directly and indirectly along with associated health benefits. Landtake and associated environmental impacts arising from landfill should dramatically reduce with respect to future impact. Equally, providing recovery and reprocessing capacity is in place, the reduction to landfill should reduce the need for transboundary waste movement and associated transboundary impacts arising from treatment or disposal elsewhere. It is important, however, that due consideration is given to investment, education and capacity building required within the immediate to short-term timeframe, to ensure that the facilities are in place to cope with increased need once recycling levels increase and that individuals understand new waste management approaches as well as the overarching objective of reducing waste generation per se. The location of new or enhanced less polluting facilities adjacent to, or in close proximity to settlements is expected to be critical to minimising the need to rely on transportation of waste either within or beyond national boundaries.

Beyond all other Options investigated, the Preferred Option should progress Wales towards reducing its Ecological Footprint, its Carbon Footprint and more broadly, progress its ambition towards sustainability in an ambitious but achievable manner. Unquestionably, the Preferred Option represents a challenge with respect to its implementation and attainment, however, this is the nature of the sustainability challenge and Wales will not achieve its wider ambitions in this context if it does not strive to impose the nature of change which this Option represents.

Post consultation, the opinions received on the respective options, were used to finalise the Preferred Option, including determining the absolute targets set, and how these would be calculated and distributed over key milestones in the lifetime of the Strategy.

4.3.1

Ecological Footprint Targets

The ecological footprint targets have been re-expressed as waste prevention targets. Whilst the overall environmental outcome of reducing the ecological footprint of waste to 'One Wales: one planet' levels by 2050 remains the same, rather than expressing this through the reduction in ecological footprint over milestone targets it has been presented as the annual reduction in waste tonnage required. Additionally, the target for municipal waste has been recalculated using newer data. These revised targets will be consulted in sector plans.

***THE MEASURES THAT ARE TO BE TAKEN TO MONITOR THE
SIGNIFICANT ENVIRONMENTAL AND WIDER SUSTAINABILITY
EFFECTS OF THE IMPLEMENTATION OF THE WALES WASTE STRATEGY***

In fulfilment of Regulation 16.4 (f) and Regulation 17, this Chapter summarises what monitoring measures will be undertaken by WAG to monitor the significant environmental and wider sustainability effects of the implementation of the Wales Waste Strategy.

5.1

SUMMARY OF MONITORING

Monitoring is the mechanism by which to ensure that the implementation of policies and proposals is consistent with the sustainability aspirations of the Strategy. The SEA Regulations state that monitoring must be undertaken of the likely significant environmental effects of the implementation of plans and programmes in order to identify at an early stage unforeseen effects and be able to undertake appropriate remedial measures.

The primary responsibility for ensuring and collating monitoring of the delivery of the Strategy resides with WAG. WAG, together with its agency, the Environment Agency, has established monitoring capacity which will be applied to addressing the needs of reviewing the implementation of the strategy across all aspects of sustainability and not just environmental sustainability, as set out in Chapter 3 of the Strategy. This comprises a framework of indicators, as set out in Chapter 3 of Towards Zero Waste, for use in the implementation of Towards Zero Waste and of its Sector Plans:

- Ecological Footprint of Waste
- Climate change
- Waste management
- Eco-design
- Employment and job type
- Skill levels and Training
- Resource use and efficiency
- Contribution to the wellbeing of Wales through an improved local environment and enriched communities which are empowered to shape their services.
- Full human potential
- Equality of opportunity

Annex A

Summary of Consultation Comments on the Sustainability Appraisal and Responses

Comments received on the SEA/SA	Response to comments, including, where relevant, how these were taken into account in the re-drafting of Towards Zero Waste
Environment Agency Wales	
<p>The headline indicators appear sensible as they relate to existing reporting mechanisms. However, they do not appear to include absolute recycling rates or indicators on levels of reuse. There are no indicators reflected in the Environment Report for the Sustainability Appraisal, as queried in our response to this document. We seek clarification on this matter.</p>	<p>The range of indicators by which to assess the performance of the implementation of Towards Zero Waste have been revised in the final published document, consistent with the recommendations of the SEA/SA. The respondent's comments in consideration of possible indicators, were taken into consideration as part of this process.</p>
<p><u>Countryside Council for Wales</u></p> <p>The comments received from Countryside Council for Wales have been discussed with them and issues clarified. Additional commentary has been provided as an Annex (B) to this PAS, as agreed with CCW.</p>	
<p>Additional plans, programmes and policies were suggested for consideration within SEA process, with particular regard to:</p> <ul style="list-style-type: none"> • water and flood risk • cultural heritage • landscape; and • soil 	<p>Plans, programmes and policies suggested by CCW have been used to update the review of policies, plans and programmes (Annex A), including:</p> <ul style="list-style-type: none"> • Relevant Water Resource Management Plans for Water Utilities Companies (Dŵr Cymru, Severn Trent, United Utilities and Dee Valley Water) • Catchment Flood Management Plans • The Habitats Directive Review of Consents (EA and Local Authority) • River Basin Management Plans (Severn, Western Wales and the Dee) • Heritage Protection Review • Register of Historic Landscapes in Wales • AONB Management Plans • National Park Management Plans • Tranquillity Maps for Wales (1997 and 2009)

Comments received on the SEA/SA	Response to comments, including, where relevant, how these were taken into account in the re-drafting of Towards Zero Waste
	<ul style="list-style-type: none"> • Environmental Liability Directive • Landfill Directive • Sludge Directive • EPA 1990 • Nitrates Directive • Groundwater Directive
<p>Baseline & Key Issues: Additional issues were raised for consideration in the identification and review of key issues emerging from baseline analysis, these including:</p> <ul style="list-style-type: none"> • Air Quality • Biodiversity • Birds • Climatic factors • Resource Efficiency • Soil • Sustainable Water Resource Management • Water & Flood Risk 	<p>The issues raised for consideration have been used to update the review of key issues and will also be taken forward for consideration in the Appraisal of the Sector Plans.</p>
<p>Objectives: In our comments on this assessment's scoping report, CCW suggested that overarching and secondary objectives required strengthening and reconsideration, specifically in the context of the Wales Waste Strategy. It is disappointing to note that no changes or revisions have been made, i.e. this section of the assessment remains essentially the same as per the scoping document</p>	<p>A review was undertaken and changes were made to the assessment objectives (Appraisal Framework) following consultation on the scoping report. It is recognised, however, that following these comments, further changes could be considered and CCW's comments will be considered further in the SEA/SA of the Sector Plans to ensure all appropriate changes are made.</p>

Comments received on the SEA/SA	Response to comments, including, where relevant, how these were taken into account in the re-drafting of Towards Zero Waste
<p>Linkages Between Topics/Effects: Concerns were raised pertaining to the Assessment's over-compartmentalism regarding environmental elements and functions. Particular concern was expressed that links and interrelationships between environmental topics should be more explicit in accordance with Annex 1(f) of the SEA Directive, and cumulative impacts addressed more thoroughly</p> <p>Clarification was sought regarding the deferment of mitigation/enhancement measures to lower tier plans in the context of 'uncertainty of potential impact' and how this may operate as a measure to offset, prevent or reduce significant adverse effects</p>	<p>Further commentary in regard to the interrelationships of elements and effects has been provided in Annex B, in discussion with CCW.</p>
<p>Balance: Clarification is also required as to whether efficiency and 'positive economic' effects will take priority over so-called 'environmental sustainability'. Explanation is therefore required as to what is understood by 'sustainable' in the context of the Wales Waste Strategy.</p>	<p>Equal weighting has been given to economic, social and environmental components of sustainability and no one strand has been prioritised over another. Further commentary is provided in relation to this, within Annex B. The final Strategy also provides further commentary on the context of what is understood to be sustainable waste planning across Wales.</p>
<p>Cumulative Impacts: While CCW supports in general the efforts made to identify 'cumulative' effects, we have some concerns regarding the method chosen and presented in Table 7.2. The summary as shown indicates a simple 'addition' of 5 'classifications' of effects however, overall cumulative benefits derived from this addition may 'hide significant disbenefits to one or more environmental factors. It would not be appropriate to</p>	<p>Further commentary in regard to this has been provided in Annex B, in discussion with CCW.</p>

Comments received on the SEA/SA	Response to comments, including, where relevant, how these were taken into account in the re-drafting of Towards Zero Waste
'trade-off' economic, social and environmental benefits and disbenefits against each other.'	
Wider Assessment Effects: Annex 1(f) states that the SEA process should consider effects including secondary, cumulative, synergistic, short, medium and long term, permanent and temporary, positive and negative. Explanation is required as to whether the effects identified within this section conform to the requirements of the SEA Directive.	Further commentary in regard to the interrelationships of effects has been provided in Annex B, in discussion with CCW.
Dealing with Uncertainty: Given the uncertainty of the nature of effects derived from the implementation of the Strategy, CCW would recommend that consideration for funding for programmes and developments derived from the Waste Strategy be made conditional on relevant environmental assessments being undertaken and environmental issues being satisfactorily addressed in advance of funding being granted/offered	Noted for consideration by WAG going forward.
Mitigation/Enhancement: Clarification is required as to how measures to offset, prevent and reduce significant adverse effects have been incorporated into this Strategy, especially in the light of the statement 7.11 (Option 4) that 'there remains areas of uncertainty with respect to potential impact but it is envisaged that further clarity and attenuating mitigation/enhancement can be provided through the implementation of the Strategy and with respect to forthcoming Sector Plans'. CCW would suggest that deferment down of mitigation/enhancement measures to lower tier	<p>Throughout the drafting of the Strategy, the Appraisal and drafting team sought to identify where there may be unintended consequences of measures. In doing so, the Strategy drafting team then sought to either prevent or offset such impacts. It was recognised, however, that given the high-level nature of the Strategy, the substantive detail around implementation and delivery would not emerge until the Sector Plans. Exploration of mitigation and enhancement measures –grounded against detailed implementation measures- was, therefore, considered appropriate at this level.</p> <p>Further commentary in regard to mitigation and enhancement has been provided in</p>

Comments received on the SEA/SA	Response to comments, including, where relevant, how these were taken into account in the re-drafting of Towards Zero Waste
plans in the context of the 'uncertainty of potential impact' does not constitute a measure to offset, prevent or reduce significant adverse effects.	Annex B, in discussion with CCW.
Additional indicators: Additional indicators should be provided in respect of the environment. Indicators presented in this report relate mainly to economic and social factors. The aim of the SEA process (and Directive) is to ensure a high level of protection for the environment and, through protection of the environment and environmental resources, enable sustainable development in the truest sense of the word. Without additional indicators and high performance in the context of safeguarding the environment, the Strategy might be construed to be failing to achieve sustainable waste management.	Additional environmental indicators have been included within the final Strategy. Further analysis will be undertaken of appropriate indicators in the Appraisal of the Sector Plans.
Assessment: See comments above on the objectives selected for this assessment process. Given our concerns (raised in our scoping response of October 2008) regarding the SEA objectives selected and issues identified, CCW feel unable to meaningfully comment on the assessment of options	<p>Noted.</p> <p>The objectives derived for the SEA/SA went through an extensive process of review involving internal and external stakeholders and were amended on an ongoing basis. The Appraisal Framework devised, therefore, represented the collective outputs of this process and the assessment was undertaken on the basis of these objectives.</p> <p>CCW's comments will be duly taken into consideration in the drafting of the objectives for the Appraisals of the Sector Plans and the Framework amended as appropriate.</p> <p>Further commentary in regard to the approach to assessment has been provided in</p>

Comments received on the SEA/SA	Response to comments, including, where relevant, how these were taken into account in the re-drafting of Towards Zero Waste
	Annex B, after discussion with CCW.
HRA: Clarification is required as to how an HRA screening assessment would make recommendations in respect of the Strategy implementation. The HRA screening process only seeks to identify those European sites which might be significantly affected by the implementation of the Strategy	<p>The HRA Screening has identified recommendations for consideration in the development of the Sector Plans which will implement the Strategy. These are being considered in the development of the Sector Plans.</p> <p>Further commentary in regard to the HRA has been provided in Annex B, in discussion with CCW.</p>
Further Assessment: CCW notes the intention, in the light of identified uncertainty, to defer responsibility for further and robust assessment down to the lower tier sectoral plans. CCW looks forward to working closely with WAG on the SEA and the HRAs of these sectoral plans	The comments are noted
Cylch	
<p>Detail of Sector Plans:</p> <p>As well as having a requirement to adhere to sustainable development principles and maximise social, environmental and economic benefits whilst at the same time delivering on national targets, there are other areas that need significant consideration in each of the Sector Plans. These include for example:</p> <ul style="list-style-type: none"> • Training – specifically waste industry training but also basic skills training • Communication – each of the sectors will need a communication plan that ties into a national communication plan (will the remit of 	A Sustainability Appraisal and SEA will be carried out for each Sector Plan. The Sector Plans will be based on Towards Zero Waste, and will encompass from the very start the core sustainable development and environmental outcomes set in Towards Zero Waste.

Comments received on the SEA/SA	Response to comments, including, where relevant, how these were taken into account in the re-drafting of Towards Zero Waste
<p>Waste Awareness Wales be expanded to take this into account?)</p> <ul style="list-style-type: none"> • Consistent performance monitoring across all sectors • Sustainability Appraisal and SEA – each of the Sector Plans will need a separate SA/SEA and if best practice is followed this should commence at the outset of each sector plan 	
Max Wallis	
<p>The Strategic Environmental Assessment fails to meet legal requirements. SEA as European legislation has priority over the fashionable, skimpy Sustainability Appraisal. SEA is aimed to ensure the development of a proper factual basis for policies, that they meet legislative requirements, that the policies are coherent and sound, and to assess reasonable alternatives to the ‘preferred’ strategy. The dummed-down Sustainability Appraisal (SEA/SA) fails to meet these requirements, primarily because it was commissioned late in the process to support already-chosen policies.</p>	<p>The approach to the SEA/SA is both consistent with current guidance and compliant with legislation (SEA Directive and transposing Regulations). Sustainability Appraisal (SEA/SA) integrates all the requirements of an SEA and seeks to build upon these to provide a more comprehensive assessment of all aspects of sustainability (encompassing environmental, economic and social), this being consistent with European, UK and Welsh policy. This Assessment has been undertaken in accordance with the requirements of this process, from Scoping (which was formally consulted upon with the Statutory Consultees) through to assessment reporting in the form of a Sustainability Appraisal Report, encompassing an Environment Report.</p> <p>The level of detail in the SEA/SA assessment and reporting is consistent with the level of detail in the Strategy itself, as per current guidance. The Welsh Assembly Government established the approach to the Strategy as being a high-level framework document which would be supported by detailed Sector Plans and wider policy. The SEA/SA has necessarily reflected this within its approach and level of detail provided. It is important to note that SEA/SAs are subsequently being undertaken of these Sector Plans to provide further analysis and to help inform the drafting of such Plans,</p>

Comments received on the SEA/SA	Response to comments, including, where relevant, how these were taken into account in the re-drafting of Towards Zero Waste
	<p>again consistent with current guidance.</p> <p>A considerable evidence base was developed during the development of the policies, and this included detailed studies of the environmental impacts of different options. The preferred options identified were developed on the basis of the extensive evidence base.</p>
<p>The SA/SEA main report says the new strategy “adds to Wise About Waste - The National Waste Strategy for Wales (2002)” but elsewhere says it will replace it. Replacement is wrong, as much in the new document is advocacy and inappropriate as planning framework, while the planning principles of the present Strategy are missing. Without such additional material, it would not be a waste plan complying with the WFD.</p>	<p>It is not the purpose of the SEA/SA to undertake a performance analysis of respective policies, strategies and plans. The review instead performs the role of noting key strategies, plans, policies which have informed or should inform the development of the current strategy or plan being drafted. As such, the description regarding 'Wise About Waste' is intended in this capacity and for the reader to be aware of its status as preceding the current Draft Strategy. Furthermore, the SEA/SA does not seek to, or engage in, any advocacy role with respect to previous, current or emerging strategies, plans and programmes.</p> <p>Towards Zero Waste is the overarching waste strategy document for Wales. Other supporting documents together will make up the new waste management plan for Wales as required under the EU Waste Framework Directive. These include:</p> <ul style="list-style-type: none"> • Sector Plans • Waste Strategy Progress Report 2002-2008 • TAN 21 • Regional Waste Plans • Local Development Plans

Comments received on the SEA/SA	Response to comments, including, where relevant, how these were taken into account in the re-drafting of Towards Zero Waste
	This is now clarified in a new Appendix (Appendix 1) added to the final version of Towards Zero Waste.
<p>The ER's description of Wise About Waste is not only a biased summary, but also fails to assess successes and failures. The strategy actually sought to “minimise landfill and incineration” (note in the present documents the word ‘incineration’ is taboo). Wise About Waste actually set MSW recycling targets, largely succeeding. And the targets given for C&D waste and hazardous waste are not reported on. It is quite inadequate as a review.</p>	<p>As above, it is not the purpose of the SEA/SA to undertake a performance analysis of respective policies, strategies and plans. The review instead performs the role of noting key strategies, plans, policies which have informed or should inform the development of the current strategy or plan being drafted.</p> <p>Further detail on progress in meeting targets is provided in the Waste Strategy Progress report 2002-2008 that is published at the same time as the final version of Towards Zero Waste.</p>
United Kingdom Without Incineration Network (UKWIN)	
<p>1.9 The SA/SEA uses the term Energy from Waste (EfW) throughout and disposal to mean by landfill, with not a single mention of incineration, despite the WFD definition setting incineration = disposal. It ignores the 2003 judgment by the European Court of Justice in which the principal purpose of municipal incinerators was found to be waste disposal (ENDS Report 339, pp 57-59; also ENDS Report 381, October 2006 <i>UK incinerators set to fall under ‘disposal’ label</i>).</p>	<p>The SEA/SA has used the term 'Energy from Waste' or 'EfW' consistent with accepted terminology. This term is used by policy-makers, business and stakeholders. The Appraisal used the term “Energy from Waste” to apply to situation where waste is combusted and energy generated for beneficial use. It does not ignore the European Court of Justice decision, nor the subsequent inclusion of “other recovery, e.g. energy recovery” as a key component of the waste hierarchy in the revised waste framework. This is placed above disposal, which includes incineration facilities dedicated to the processing of municipal solid waste only where their energy efficiency is equal to or above:</p> <p>— 0,60 for installations in operation and permitted in accordance with applicable Community legislation before 1 January 2009,</p>

Comments received on the SEA/SA	Response to comments, including, where relevant, how these were taken into account in the re-drafting of Towards Zero Waste
	<p>— 0,65 for installations permitted after 31 December 2008, using the following formula: Energy efficiency = $(E_p - (E_f + E_i)) / (0,97 \times (E_w + E_f))$ In which:</p> <ul style="list-style-type: none"> • E_p means annual energy produced as heat or electricity. It is calculated with energy in the form of electricity being multiplied by 2,6 and heat produced for commercial use multiplied by 1,1 (GJ/year) • E_f means annual energy input to the system from fuels contributing to the production of steam (GJ/year) • E_w means annual energy contained in the treated waste calculated using the net calorific value of the waste (GJ/year) • E_i means annual energy imported excluding E_w and E_f (GJ/year) • 0,97 is a factor accounting for energy losses due to bottom ash and radiation.
<p>1.10 The draft strategy is described as “a complete revision of <i>Wise About Waste, The National Waste Strategy for Wales 2002</i>”. However we find the analysis and information base is inadequate for reviewing the present policies and developing a revised strategy. In scope and quality it compares poorly with England’s Waste Strategy. Furthermore the draft hasn’t been revised to meet the requirements Waste Framework Directive 2008 and claims that this is a key driver are not supported by the evidence.</p>	<p>The SEA/SA notes WAG’s objective of developing a new overarching strategy document –Towards Zero Waste, which by definition seeks to replace the existing strategy ‘National Strategy for Wales’. Where appropriate, the new strategy document builds upon the previous strategy.</p> <p>The level of detail in the SEA/SA assessment and reporting is consistent with the level of detail in the Strategy document itself, as per current guidance. The Welsh Assembly Government established the approach to the Strategy document as being a high-level framework document which would be supported by detailed Sector Plans and wider policy. The SEA/SA has necessarily reflected this within its approach and assessment. It is important to note that SEA/SAs are subsequently being undertaken of these Sector Plans to provide further analysis and to help inform the drafting of</p>

Comments received on the SEA/SA	Response to comments, including, where relevant, how these were taken into account in the re-drafting of Towards Zero Waste
	<p>such Plans, again consistent with current guidance.</p> <p>More specific references to the revised Waste Framework Directive are made in the final published version of Towards Zero Waste.</p>
<p>2.1 The SA/SEA main report says the new strategy “adds to <i>Wise About Waste – The National Waste Strategy for Wales (2002)</i>” but elsewhere says it will replace it. Replacement is wrong, as much in the new document is advocacy and inappropriate as planning framework, while the planning principles of the present Strategy are missing. Without such additional material, it would not be a waste plan complying with the WFD.</p>	<p>Towards Zero Waste is the overarching waste strategy document for Wales. Other supporting documents together will make up the new waste management plan for Wales as required under the EU Waste Framework Directive. These include:</p> <ul style="list-style-type: none"> • Sector Plans • Waste Strategy Progress Report 2002-2008 • TAN 21 • Regional Waste Plans • Local Development Plans <p>This is now clarified in a new Appendix (Appendix 1) added to the final version of Towards Zero Waste.</p>

Comments received on the SEA/SA	Response to comments, including, where relevant, how these were taken into account in the re-drafting of Towards Zero Waste
<p>2.2 The Report describes <i>Wise About Waste</i> as: <i>This document sets out the way Wales will deal with its waste in the next 10 years. It aims to move Wales away from an over-reliance on landfill to a more sustainable way of waste management. This will be achieved by adopting a sustainable, integrated approach to waste production by minimising waste production, reducing its environmental impacts and maximises the use of unavoidable waste as a resource:</i></p> <ul style="list-style-type: none"> • <i>to re-use and recycle at 85% of construction and demolition waste by 2010; and</i> • <i>to reduce the amount of hazardous waste generated by at least 20 % by 2010.</i> <p>2.3 This is not only a biased summary, but also fails to assess successes and failures. The strategy actually sought to “minimise landfill and incineration” (note in the present documents the word ‘incineration’ is taboo). <i>Wise About Waste</i> actually set MSW recycling targets, largely succeeding. And the targets given for C&D waste and hazardous waste are not reported on. It is quite inadequate as a review.</p>	<p>It is not the purpose of the SEA/SA to undertake a performance analysis of respective policies, strategies and plans. The review instead performs the role of noting key strategies, plans, policies which have informed or should inform the development of the current strategy or plan being drafted. The Appraisal acts, therefore, to signpost such strategies, allowing any interested reader to seek further information, if so required</p> <p>Further detail on progress in meeting targets is provided in the Waste Strategy Progress report 2002-2008 that is published at the same time as the final version of Towards Zero Waste.</p>
<p>3.1 All the questions posed for consultation relate to the draft strategy TZW. While the other documents are nominally offered up for comment, it’s only the SEA on which there is a legal requirement to consult and amend in response to criticisms (under</p>	<p>Sustainability Appraisal (SEA/SA) integrates all the requirements of an SEA and seeks to build upon these to provide a more comprehensive assessment of all aspects of sustainability (encompassing environmental, economic and social), this being consistent with European, UK and Welsh policy.</p>

Comments received on the SEA/SA	Response to comments, including, where relevant, how these were taken into account in the re-drafting of Towards Zero Waste
<p>Reg. 8(3)3). And this SEA is submerged in the Environmental Report (ER) on the supposedly combined SEA/SA.</p> <p>3.2 The few and limited responses to the SEA will prove WAG has failed to genuinely consult, but just pretended to comply with the SEA Directive:</p> <p><i>in order to ensure that the decision-making process is transparent and that the information supplied for the assessment is comprehensive and reliable, it is necessary to provide that authorities and/or bodies with relevant environmental responsibilities and the public are to be consulted during the assessment of plans and programmes.</i></p>	<p>The production of a Sustainability Appraisal Report, incorporating the requirements of an Environmental Report, is not only standard practice, but good practice, as per current guidance. The constituent elements of the Environmental Report are, furthermore, clearly signposted.</p> <p>The SEA/SA Scoping Report was formally consulted upon with Consultation Bodies. The Sustainability Appraisal Report was again formally consulted upon with the Consultation Bodies and concurrently placed in the public domain for a period of 12 weeks consultation, as per requirements. A programme of wider consultation has also been undertaken to supplement this, with a range of stakeholders. The responses to the consultation phase have been considered and have been used to finalise the Strategy and the completion of the SEA/SA. The comments are also being used to inform the development of the forthcoming Sector Plans and their appraisals.</p>
<p>3.5 This is relevant because WAG has contracted out the analysis of responses to this consultation, potentially to the same consultants contracted to draw up this inadequate SEA/SA. The consultants then have no guidance on quality, independence and completeness of reporting, as under the Westminster Code and the WAG officials duck responsibility under Civil Service codes. The way the SEA/SA authors allowed WAG to restrict the options in contravention of the SEA Regs (requiring consideration of reasonable alternatives – see below) shows the deficits inherent in this divided responsibility.</p>	<p>The approach to the SEA/SA is both consistent with current guidance and compliant with legislation (SEA Directive and transposing Regulations).</p> <p>The analysis of the consultation responses was carried out by Dialogue by Design. The SA/SEA was carried out by ERM and the contract was managed by the Sustainable Development Commission, with funding provided by the Welsh Assembly Government.</p> <p>The Directive and transposing Regulations state that the SEA/SA must include 'an outline of the reasons for selecting the alternatives dealt with'. The Sustainability</p>

Comments received on the SEA/SA	Response to comments, including, where relevant, how these were taken into account in the re-drafting of Towards Zero Waste
	Appraisal Report explained the approach and rationale for the alternatives which were considered within the assessment, as well as the impact of such alternatives. The Assessment is, therefore, consistent and compliant with both legislation and Guidance.
<p>3.6 We note the way in which WAG has identified ‘consultation bodies’ for the purpose of the Directive’s Article 6 (3): <i>Member States shall designate the authorities and/or bodies to be consulted which, by reason of their specific environmental responsibilities, are likely to be concerned by the environmental effects of implementing plans and programmes.</i></p> <p>3.7 WAG chose three ‘business’ groups, Cylch, Wales CBI and Wales Co-op Centre. All may be “concerned” over the Waste Strategy, but not, primarily, over the “environmental effects”. Cylch has some claim here, having promoted ‘zero waste’ partly on environmental grounds, but not the other two. We as UKWIN do have a claim, but not nearly as strong as Friends of the Earth and in particular FoE Cymru who have engaged with Welsh waste planning for years. It is astounding that WAG implements the Directive regarding ‘consultation bodies’ in this biased manner.</p>	For the purposes of the SEA, WAG has consulted the ‘Consultation Bodies’ specified in the SEA Regulations, namely the Environment Agency, the Countryside Council for Wales and Cadw.

Comments received on the SEA/SA	Response to comments, including, where relevant, how these were taken into account in the re-drafting of Towards Zero Waste
<p>6.0 The Strategic Environmental Assessment fails to meet legal requirements</p> <p>6.1 SEA as European legislation has priority over the fashionable, skimpy Sustainability Appraisal (<i>The Sustainability Appraisal of the Wales Waste Strategy: Sustainability Appraisal Report</i>). SEA is aimed to ensure the development of a proper factual basis for policies, that they meet legislative requirements, that the policies are coherent and sound, and to assess reasonable alternatives to the 'preferred' strategy.</p> <p>The dummed-down Sustainability Appraisal (SEA/SA) compiled by ERM with its two Appendixes admits to having the character of "scoping" and being "compiled within a very short timeframe". It fails to meet these requirements, primarily because it was commissioned late in the process to support already-chosen policies. It does not meet the ODPM/WAG guidance on SEA. It claims "<i>compliance with the SEA Directive and Welsh Assembly Government SEA/SA Guidance. It represents a key output of the Appraisal process and is put forward for 12 weeks' consultation from 29th April 2009</i>".</p> <p>We pick out some important deficiencies in respect to SEA</p>	<p>The approach to the SEA/SA is both consistent with current guidance and compliant with legislation (SEA Directive and transposing Regulations). Sustainability Appraisal (SEA/SA) integrates all the requirements of an SEA and seeks to build upon these to provide a more comprehensive assessment of all aspects of sustainability (encompassing environmental, economic and social), this being consistent with European, UK and Welsh policy. This Assessment has been undertaken in accordance with the requirements of this process, from Scoping (which was formally consulted upon with the Statutory Consultees) through to assessment reporting in the form of a Sustainability Appraisal Report, encompassing an Environment Report.</p> <p>The requisite components of an SEA/SA – as quoted from the Regulations – are all clearly signposted within the Report and set out clearly within the Report.</p> <p>The level of detail in the SEA/SA assessment and reporting is consistent with the level of detail in the Strategy itself, as per current guidance. The Welsh Assembly Government established the approach to the Strategy as being a high-level framework document which would be supported by detailed Sector Plans and wider policy. The SEA/SA has necessarily reflected this within its approach and assessment. It is important to note that SEA/SAs are subsequently being undertaken of these Sector Plans to provide further analysis and to help inform the drafting of such Plans, again consistent with current guidance.</p> <p>Consultation was undertaken at Scoping and assessment stage – the Sustainability</p>

Comments received on the SEA/SA	Response to comments, including, where relevant, how these were taken into account in the re-drafting of Towards Zero Waste
<p>requirements, showing the claim of 'compliance' is unfounded.</p> <p><i>6.2 Requirements of the SEA Directive and Regulations</i> The Environmental Assessment of Plans and Programmes (Wales) Regulations 2004 (Welsh Statutory Instrument 2004 No. 1656 (W.170)) implements the SEA Directive. The SEA fails to comply adequately with the following in material respects: <i>Reg. 12 (2) The report must identify, describe and evaluate the likely significant effects on the environment of -</i> <i>(a) implementing the plan or programme; and</i> <i>(b) reasonable alternatives, taking into account the objectives and the geographical scope of the plan or programme.</i></p>	<p>Appraisal Report – in full compliance with the Directive, Regulations and guidance.</p>

Comments received on the SEA/SA	Response to comments, including, where relevant, how these were taken into account in the re-drafting of Towards Zero Waste
<p>6.2.1 We illustrate (a) in respect of incinerator ash. Fly ash is hazardous waste as much bottom ash (IBA) may also be. To handle this waste requires disposal routes in each region of Wales (required for Regional Self-sufficiency), probably hazardous waste landfills, to take 20 000 t/yr flyash and 100 000t/yr IBA. The SA/SEA makes no mention of ash.</p> <p>6.2.2 To illustrate (b), Mechanical & Biological Treatments (MBT) with outputs used on land or sent to landfill, are widely used as alternative residual waste treatment to incineration, yet not covered explicitly or in the options. MBT is another taboo word for the writers, yet MBT is a “reasonable alternative” for purposes of the Directive.</p>	<p>A considerable evidence base was developed during the development of the policies, and this included detailed studies of the environmental impacts of different options. The preferred options identified were developed on the basis of the extensive evidence base.</p> <p>As defined by both legislation and guidance, the SEA/SA assessed all reasonable alternatives or options that were being considered in drafting the Strategy. This was the basis of significant discussion between WAG and the Appraisal team, and the options assessed were those realistically being considered.</p>
<p>6.2.4 We understand that WAG did tell the SA/SEA team to exclude sending MBT outputs to land on policy/political grounds, but in the final Plan WAG officials rescinded this as incompatible with their acceptance of WRAP’s Quality Protocols and requirements for ‘science based’ decision-making. This late change alone makes the SEA and draft Plan defective.</p>	<p>No exclusions were requested or made. As defined by both legislation and guidance, the SEA/SA assessed all reasonable alternatives or options that were being considered in drafting the Strategy. This was the basis of significant discussion between WAG and the Appraisal team, and the options assessed were those realistically being considered.</p> <p>No late change on this matter was made to the consultation draft of Towards Zero Waste. The document does not refer to the spreading of MBT residue on land.</p> <p>Towards Zero Waste is a high level strategy document. This issue will be dealt with in</p>

Comments received on the SEA/SA	Response to comments, including, where relevant, how these were taken into account in the re-drafting of Towards Zero Waste
	more detail in the Sector Plans, which will be accompanied by a Sustainability Appraisal that will incorporate an SEA.
<p>6.2.5 It is proposed (in “<i>Future Directions...</i>”) that the question of a ban on MBT outputs to land is revisited for 2016 but without reason. Such prejudice-based decision-making on this issue is unacceptable – it is present policy to perform BPEO assessment if there are concerns about particular waste streams. The prejudice of WAG officials against MBT cost Caerphilly council dearly in forcing them to abandon a proposed Biffa Waste contract; it is similarly costing Sterecycle dearly in forcing them to design an RDF + incinerator project rather than use their fibre-output on land as permitted in South Yorkshire. If WAG maintains that there are problems to justify suspending approval, SEA Reg 12(2) requires them to be described.</p>	<p>WAG note: Caerphilly abandoned the proposed contract for an MBT plant because it was unaffordable. They approached WAG for additional funding but this was not available. WAG has concerns about the spreading of mixed waste on land in respect of the precautionary principle. WAG’s policy is for biowaste to be separated at source, thus reducing the potential to cause pollution when it is spread on land. This issue will be explored further in the Collections, Infrastructure and Markets Sector Plan, and will be covered in the accompanying Sustainability Appraisal (that includes an SEA and HIA).</p>
<p>6.3.1 While this was adopted only in October 2008, its terms were well-known months, even a year earlier. The Plan claims to be driven by the 2008 WFD, but the SEA/SA report just mentions “as amended by Directive 2008/98/EC (p.26) and says nothing about the changed waste hierarchy. In particular, it ignores the 2008 WFD’s classification of incineration as “disposal” at the base of the hierarchy, equivalent to disposal by landfill, and its restriction to ‘energy recovery’ only those incineration processes reaching a</p>	<p>The draft of Towards Zero Waste did not ignore the energy efficiency threshold set in the revised Waste Framework – that is why the document referred to the use of “high energy efficiency” energy from waste plants to treat residual waste. The revised waste hierarchy is incorporated into the final version of Towards Zero Waste.</p>

Comments received on the SEA/SA	Response to comments, including, where relevant, how these were taken into account in the re-drafting of Towards Zero Waste
specified formula/standard.	
<p>6.3.4 The options were developed in a non-transparent way by WAG officials, as stated in 7.2.2, involving “<i>environmental sustainability but also wider economic and social considerations</i>”, and no structured process is described nor any reasoned explanation given. The ecological footprint is mentioned only in one, carbon footprint not at all. There is no explanation for selecting the dates 2025 and 2050 (EU commitments are for 2020 and cover carbon). WAG wants to claim “high recycling” which would be 80% (or more) under the WLGA/Eunomia study, yet 70% was chosen (later reduced to 63%) without reason. No explanation of how they chose the (impractical) maximum 5% to landfill. The consultants ARUP recommended targets to reduce “both the total volume of waste arising in the municipal waste stream and the total volume of household waste generated per capita”, but there’s no reasoning on why WAG officials ignored the second.</p>	<p>WAG has developed its realistic options taking into account the following:</p> <ul style="list-style-type: none"> • Part 3 of the final version of Towards Zero Waste explains that 2050 has been chosen as a key milestone because the Assembly Government has set this date as a target to achieve the “One Planet” living goal. 2025 is an intermediate milestone on the way to this goal. • The recycling target for 2025 for all wastes (including municipal) is identified as at least 70% in the final version of Towards Zero Waste. 70% is identified as a minimum. The aim for 2050 is for all wastes to be reused or recycled. • 5% landfill maximum for municipal waste is acknowledged as challenging, but is achievable. Flanders currently landfills less than 5% of its municipal waste.
<p>6.3.5 There is no justification for excluding MBT with outputs to land. The late change to the Strategy that accepted the WRAP protocols should cover this was not taken into account in the SEA/SA.</p>	<p>No late change on this matter was made to the consultation draft of Towards Zero Waste. The document does not refer anywhere to the spreading of MBT residue on land.</p>
<p>6.3.6 There is no mention of gas-from-waste for domestic use,</p>	<p>The Collections, Infrastructure and Markets Sector Plan is the more appropriate place</p>

Comments received on the SEA/SA	Response to comments, including, where relevant, how these were taken into account in the re-drafting of Towards Zero Waste
which the National Grid Company is promoting, with distinct benefits over incineration.	to consider this issue. This Sector Plan will also be subject to an Appraisal as previously noted.
6.4.1 These policy options in the Waste area were disclosed in papers of the Wales <i>Commission on Climate Change</i> (June 2008) as reproduced below. Note in these options that MBT plant stabilising waste before disposal to landfill is 'mature' technology and that the increase of CO2 emissions particularly from "mass burn incineration" is an issue, said to be relatively small if "energy recovery" at presumed high efficiency levels is achieved. Table 8 (not reproduced) says these options give zero abatement of greenhouse gases, above those caused by the Landfill Directive. Note too that the target date is 2020, while little can be said about options post 2020.	<p>As defined by both legislation and guidance, the SEA/SA assessed all reasonable alternatives or options that were being considered in drafting the Strategy. This was the basis of significant discussion between WAG and the Appraisal team, and the options assessed were those realistically being considered.</p> <p>Further comments are noted.</p>
6.4.2 Table 6 summarises the consultants' recommendation for all five alternative waste options, though not biogas-from-waste which they were ignorant of. The point here is the options of MBT plant producing compost and MBT plant stabilising waste pre-landfill were not taken for SEA/SA appraisal subsequently in late summer of 2008, on the excuse that WAG officials were still developing options. Secondly that the final SEA/SA does not admit these options had been considered and dropped – and of course fails to give reasons. Moreover, the SEA/SA fails to mention the entire issue mentioned by the consultants of CO2 increased by	<p>The options chosen took into account the Sustainable Waste Management Option appraisal work carried out as part of the 1st Review of the three Regional Waste Plans. MBT to landfill performed poorly compared to options that involved energy recovery. Also, the Assembly Government's policy is for biowaste to be separated at source before being applied to land, so MBT to landspreading would not be a viable option as it involves non-source separated biowaste derived from mixed waste being applied</p> <p>As defined by both legislation and guidance, the SEA/SA assessed all reasonable alternatives or options that were being considered in drafting the Strategy. This was</p>

Comments received on the SEA/SA	Response to comments, including, where relevant, how these were taken into account in the re-drafting of Towards Zero Waste
<p>incineration (depending on 'energy recovery' but as we explain below, it would be wrong to assume that incinerators in Wales could meet the energy recovery standard of the Directive and still less that they could meet the 60% thermal efficiency minimum target).</p>	<p>the basis of significant discussion between WAG and the Appraisal team, and the options assessed were those realistically being considered.</p>
<p><u>Ed Gmitrowicz - Envirowise Wales</u></p>	
<p>The draft Waste Strategy for Wales provides a challenging vision of the future management of resources and waste in Wales that is consistent with the broader aims of 'One Wales: One Planet' in reducing the ecological footprint of Wales to a sustainable level. This consistency between policy documents is clearly important, and demonstrates the Welsh Assembly Government's intent with regard to achieving sustainable development goals. The Sustainability Assessment outlines the other options considered, the limitations and benefits of those options and the link between the preferred option and the 'One Wales: one Planet' objectives. As importantly, the draft Strategy and Sustainability Assessment explain that achievement of the preferred option is not solely in the control of the Welsh Assembly Government, and will require changes at UK, European and global levels, as well as significant behavioural change in each sector of Welsh life.</p> <p>Achievement of the objectives set out in the draft strategy are</p>	<p>The comments are noted.</p>

Comments received on the SEA/SA	Response to comments, including, where relevant, how these were taken into account in the re-drafting of Towards Zero Waste
therefore not guaranteed, but the consistent approach, encompassing all sectors of the Welsh economy, is necessarily ambitious and timely.	

Annex B

Additional Commentary on Sustainability Appraisal

B1.1

INTRODUCTION

Following discussion with CCW in relation to its consultation responses to the draft Strategy and Sustainability Appraisal Report, additional clarity and commentary was requested on a number of issues, this commentary being provided through this supplementary Annex to the Post Adoption Statement, as agreed with CCW.

Specifically, further information is, therefore, provided on the following issues raised by CCW:

- The nature and approach of this Sustainability Appraisal and the forthcoming Sustainability Appraisals of the Sector Plans.
- Key sustainability challenges;
- Assessment and Findings of the Appraisal including dealing issues of uncertainty;
- The importance of further assessment of the sector plans.

Updates to baseline material and further review of relevant plans, programmes and policies have been undertaken to inform the Sustainability Appraisal of the Sector Plans.

Full WAG responses to consultation upon the Strategy are further contained within the publically available Sustainability Appraisal Report.

B1.2

THE NATURE AND APPROACH TO THE SUSTAINABILITY APPRAISAL

B1.2.1

Overview

From inception, the Welsh Assembly Government, in conjunction with the Sustainable Development Commission Wales, deliberately sought to undertake a Sustainability Appraisal and not solely SEA, to ensure that economic and social issues were duly considered alongside those of environmental factors, as befits a national strategy of this nature. This form of Appraisal accorded with WAG's approach to ensure sustainability is effectively considered in its strategic and policy drafting. The Sustainability Appraisal is, however, fully compliant with the SEA Directive and transposing Regulations.

Key to the attainment of the goal of policy-making which accords with national sustainability aspirations, is the Appraisal process and ongoing critical review. The Strategy drafting and Appraisal team have accordingly worked in close cooperation throughout the course of this Appraisal. From the outset, there was a clear discussion on the importance of embedding sustainability throughout the approach and content of the Strategy.

Environmental factors were considered alongside economic and social factors and inevitably, there are both conflicts as well as opportunities in determining what the overall sustainability of a given option or policy choice is. Importantly, those compromises must be considered in light of whether mitigation or enhancement can be identified to ensure that no undue impact occurs to any one specific strand of sustainability and such impacts can be avoided where at all possible. The Appraisal was mindful, therefore, of the need to ensure that compromises are considered appropriate and recognised that in some instances compromises will not, therefore, be acceptable, for example, where there is adverse impact on designated sites such as Natura 2000 sites. Where such conflicts occurred, the Appraisal sought to identify both the conflicts and the need to avoid adverse impacts, as well as identifying mitigation/enhancement throughout the drafting process, and subsequently in the actual findings.

B1.2.2 *The Importance of Environmental Sustainability*

Whilst the Strategy, and its Appraisal, sought to address all aspects of sustainability, this did not in any way detract from the importance of explicitly promoting environmental sustainability. On the contrary, the central aspiration of the Strategy to progress 'towards zero waste', explicitly seeks to provide a robust platform for the protection and enhancement of the environment for current and future generations. An extensive evidence base was commissioned, including LCA and ecological footprint modelling, to determine which option would provide the strongest basis for environmental sustainability; this then becoming a key consideration in assessing the overall sustainability of the Preferred Option. The importance of facilitating optimal environmental protection was also a key consideration throughout the assessment of the Strategy and in the recommendations for the forthcoming Sector Plans.

B1.2.3 *Informing the Drafting Process*

The key mechanism by which the Appraisal informed the strategy drafting was through the identification of appropriate environmental, social and economic objectives, as well as ongoing review and analysis of policy direction, and specific policy choices. The high-level nature of the Strategy meant that the appraisal focused on discussing the implications of the major policy choices being made and general direction of the Strategy itself. The Appraisal assessed the realistic options considered, which to a large extent focused on the scale of targets which would be established through the Strategy. This, therefore, became a significant focus for the Appraisal, alongside those factors which influenced the capacity of WAG to achieve its strategic objectives. In addition to the ongoing discussion around these targets, the Appraisal also identified a series of recommendations around the importance of implementation (please refer to the Sustainability Appraisal Report for further detail).

B1.3 *UPDATING THE INFORMATION BASE FOR THE SUSTAINABILITY APPRAISAL*

B1.3.1 *Review of Policies, Plans and Programmes*

The comments received from CCW in regard to the inclusion of additional policies, plans and programmes, have been noted and addressed through an updated Annex A of the Sustainability Appraisal Report. This includes consideration of policies, plans and programmes with particular regard to water and flood risk, cultural heritage, landscape and soil:

- Heritage Protection Review
- Register of Historic Landscapes in Wales
- EC Habitats and Birds Directives
- Relevant Water Resource Management Plans for Water Utilities Companies (Dŵr Cymru, Severn Trent, United Utilities and Dee Valley Water)
- Catchment Flood Management Plans
- The Habitats Directive Review of Consents (EA and Local Authority)
- River Basin Management Plans (Severn, Western Wales and the Dee)
- AONB Management Plans
- National Park Management Plans
- Tranquillity Maps for Wales (1997 and 2009)
- Environmental Liability Directive
- Landfill Directive
- Sludge Directive
- EPA 1990
- Nitrates Directive
- Groundwater Directive

B1.3.2 *Baseline Conditions*

Comments received from CCW in regard to key issues and topics of note within the collation of baseline have been reviewed and additional commentary provided within Annex B of the Sustainability Appraisal Report. This included the provision of summary text on baseline information pertaining to:

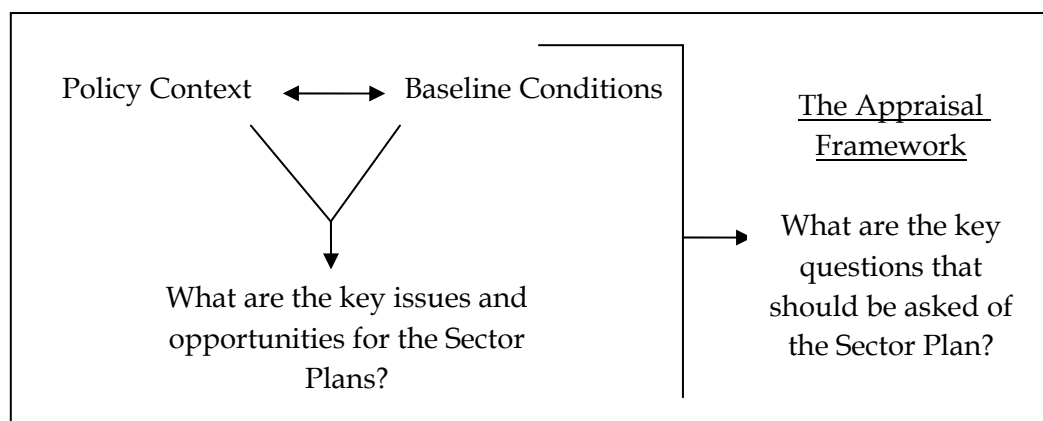
- Air
- Biodiversity
- Climate Change
- Water and Flood risk

This information will be used to inform the Sustainability Appraisal of the Sector Plans

B1.4 *KEY SUSTAINABILITY ISSUES*

Additional sustainability issues raised in the consultation response by CCW have been incorporated (in bold) within the table of key sustainability issues previously published in the Sustainability Appraisal Report. This updated

table is published below. This will be used to inform the Sustainability Appraisals of the Sector Plans.



Sustainability, Material Assets & Social Fabric
<i>Broad Sustainability/Material Assets</i>
<i>Challenges & Collective Opportunities:</i>
<ul style="list-style-type: none"> • How to devise a realistic, workable strategy of sustainable waste management which will enable cost-effective, reliable, service delivery whilst also meeting Wales' broader sustainability, carbon and Ecological Footprint objectives including the development of ecological goods, services and processes. • How to reduce and prevent waste generation in line with the broader policy of sustainable development and reduced Ecological Footprint, and with the ultimate goal of 'zero waste'; how to promote public procurement policies to develop ecological goods, services and processes.. • How to facilitate the development of appropriate alternative/new waste management infrastructure within the prescribed time frame and within resource constraints, developing facilities that address the varied priority waste materials and their sources. • How to address the varied and multiple sources of waste (including construction, demolition & excavation, agricultural and quarry waste) and the handling or processing of such waste alongside that of municipal waste. • How to address the needs of Local Authorities in meeting challenging targets and how best to address disparate Local Authority geographical and socio-economic contexts. • How to engage with private, public and third sectors to maximise the benefits of partnership approach, assign clear responsibility and motivate engagement in this context from the public in particular, and generally enhance management in an integrated manner. • How to create and sustain engagement in what will be a substantive cultural shift towards wide-scale domestic, commercial and industrial recycling; recognising the drivers which already exist in terms of commercial and industrial engagement in this context but also the substantive increase in recycling rates which is being envisaged, alongside that for MSW. • How to balance drivers to encourage voluntary engagement and the potential scope for mandatory participation from households and potentially escalating regulatory requirements on commercial and industrial sources.

Sustainability, Material Assets & Social Fabric	
<i>Social Fabric: Public Participation</i>	
<i>Challenges:</i>	<i>Collective Opportunities:</i>
<ul style="list-style-type: none"> • How to raise awareness and understanding of the importance of engaging in more sustainable waste management practice, this being pivotal to the efficacy of household recycling initiatives, particularly in the absence of regulation/mandatory participation. • How to relay the need for, and promotion of, individual and corporate responsibility for waste production and disposal. • How to promote a substantive increase in terms of participating households and levels of waste recycling. • How to increase the scope of waste materials to be recycled and the means/mechanisms through which this will be facilitated. • How to select the location and scale of facilities that are accessible to communities in terms of proximity but also in terms of being socially acceptable and economically feasible. 	<ul style="list-style-type: none"> • To create greater understanding of the challenge of progressing sustainability within the context of resource and waste management. • To engender interest and engagement with the public in terms of personal responsibility and household/collective engagement in more sustainable activities such as recycling. • To create a cultural shift with respect to attitudes towards generating and disposing of waste, recognising that commercial and industrial sources are already heavily regulated. • To enable the public sector and others to adapt to and develop the infrastructure necessary to facilitate a shift in waste generation and management at both the macro and micro level. • To progress national performance in terms of delivering greater sustainability and reducing the Ecological Footprint of the nation in respect of this. • To engender a sense of empowerment amongst members of the public in the collective response to addressing and abating potential climatic change and reducing Wales' Ecological Footprint more generally.

Landscape, Biodiversity, Cultural Heritage & Historic Environment	
<i>Challenges:</i>	<i>Collective Opportunities:</i>
<ul style="list-style-type: none"> • How to protect and enhance the historic environment of Wales including designated historic assets while developing waste infrastructure. • How to protect and enhance the distinctive character and visual identity of communities, landscapes and townscapes across Wales while developing waste infrastructure. • How to protect and enhance the biodiversity, flora and fauna of sites, designated and non-designated in stature. • How to prioritise the use of brownfield sites for the siting of new facilities and to protect the landscape, water and soil resources within and surrounding existing and 	<ul style="list-style-type: none"> • To reduce the visual impact of landfill sites through the diversion of waste, escalating targets for waste reduction and eventual elimination of waste (zero waste) and to enhance the quality of recycling infrastructure generally. • To promote and contribute to national, regional and local targets with respect to brownfield land use and more sustainable use of land resources generally. • To encourage commercial operations in line with this policy and ensure investment occurs in line with broader sustainability criteria generally, for example, advocacy of green procurement and supply chain management. • To contribute towards enhanced accessibility of services and facilities particularly amongst those with reduced mobility and lack of car ownership.

<p>new infrastructure sites.</p> <ul style="list-style-type: none"> • How ensure accessibility; mitigating against the need for access by private transport i.e. car and recognising the challenge posed for areas with low car ownership. • Ensuring designated landscapes and areas /biodiversity are adequately protected when considering the location and deployment of new waste facilities and services (including transportation of materials to and from such locations). • How to encourage the development of ecological goods, services and processes. • Ensure interrelationships between air quality and its wider effects are considered, particularly with regard to potential climate change consequences upon habitats and species biodiversity 	<ul style="list-style-type: none"> • To protect the integrity of designated (including Natura 2000) and non-designated sites of ecological and biodiversity value. • To protect and enhance landscapes of cultural and historic importance in line with local, regional and national policy. • To promote sustainable transportation of waste in terms of modes and services.
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Resource Use: Soil & Water	
<i>Soil Resources</i>	
<i>Challenges:</i>	<i>Collective Opportunities:</i>
<ul style="list-style-type: none"> • How to ensure that soil resources and vulnerable soils are adequately protected in the deployment of new technologies and facilities and the refurbishment or redeployment of existing facilities; how to exploit the opportunities for soil resource protection which such technologies can bring. • How to protect against the potential for emissions to soil and water arising from the varied technologies which will be deployed. • How to address particular sources of waste such as agricultural or construction waste and the potential for adverse emissions to soil, groundwater and rivers. • How to incorporate the use of varied waste/treated waste applications and technologies whilst ensuring non-beneficial impacts are mitigated against. • How to ensure the protection of soil function, including carbon sequestration, water filtration and interception; 	<ul style="list-style-type: none"> • To promote and contribute to national, regional and local targets with respect to brownfield land use and more sustainable use of land and soil resources generally. • To address the range of environmental factors and maximise the sustainability of waste management choices to deliver sustainable soil policy.

<i>Water Resources</i>	
<i>Challenges:</i>	<i>Collective Opportunities:</i>
<ul style="list-style-type: none"> • How to protect areas prone to flood risk in the siting of new facilities, including how to best use flood risk assessments and pertinent Management Plans, where appropriate, to inform the selection of sites. • How to ensure that new and emerging technologies being considered employ sustainable water consumption but also pose no threat to groundwater or surface water quality. • How to ensure the protection of water resources, per se, is given adequate and timely consideration in the development of not only new infrastructure but any proposed changes in use or scale for existing infrastructure. 	<ul style="list-style-type: none"> • The potential exists, through reducing and eventually eliminating waste sent to landfill, to reduce the need for landfill sites and potential for soil and water contamination and/or emissions arising from such activity. To reduce runoff and potential flood risk through sustainable strategic planning and soil resource management. • By giving such a clear steer towards ambitious waste reduction targets, the Welsh Assembly Government is providing the security of long-term policy objectives which should enable both commercial and public sector investment in advancing alternative technologies and research into minimising environmental and wider impacts.

<i>Climatic Factors & Air Quality</i>	
<i>Challenges:</i>	<i>Collective Opportunities:</i>
<ul style="list-style-type: none"> • How to maximise the contribution which sustainable waste management can make to Wales' targets for GHG emission reduction and the creation of a carbon constrained economy. • How to create a strategic framework which can progress on the basis of existing and proven technologies but also facilitate the incorporation of new technologies, as and when these appear (noting the challenge of investment by private sector operators and security of contract). • How to balance the immediate costs of investment in new technologies and infrastructure in the short term against longer-term sustainability gains such as low carbon energy provision. • How to facilitate the level of engagement required in the absence of a full/adequate understanding and sometimes sceptical public over climatic change. • Whether regulation is required to enforce domestic/household participation and to escalate commercial/industrial sector participation and the acceptance of this. 	<ul style="list-style-type: none"> • To promote an integrated approach to preventing and abating climatic change, not just within Wales but beyond. • To collectively reduce Wales' Carbon Footprint through strategic intervention across public and private sector operations. • To channel procurement and spend in the pursuit of carbon constrained policies, plans and projects. • To significantly contribute to Wales' ambition to become a carbon constrained, sustainable, economy by changing the behaviour of individuals and companies in terms of their attitudes to waste management. • To substantively reduce the Ecological Footprint (and constituent Carbon Footprint) at local, regional and national levels through addressing the issue of resource use and consumption. • To address upfront issues surrounding public perception of alternative waste technologies and engage in an informed debate as to future direction, at the level in which stakeholders can meaningfully influence strategic policy and objectives.

<ul style="list-style-type: none"> • How to raise awareness and understanding of <i>actual</i> impacts, as opposed to <i>perceived</i> impacts surrounding management options and wider emerging technologies. • How to minimise impact to air arising from alternative forms of waste processing and management, recognising that relatively new technologies are emerging. • How to ensure that emissions to air are monitored and mitigated against with respect to transportation of materials to and from waste processing/recycling plants and facilities. • How to ensure implementation is possible in the context of a physical future shaped by predicted climate change impacts. 	
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Population, Health & Well-being	
<i>Issues:</i>	<i>Collective Opportunities:</i>
<ul style="list-style-type: none"> • To address and allay public perceptions surrounding the deployment of certain waste technologies. • To raise understanding and awareness of how to engage in recycling (including composting and kitchen waste) in a safe and responsible manner. • Addressing key determinants of health and well-being – how to maximise employment and access to services and facilities (amongst others) and the beneficial impact this has upon health and well-being. • From a commercial and industrial perspective – how to facilitate increased engagement in alternative waste disposal without exposing employees to hazardous activities or potential adverse impacts to health and well-being. 	<ul style="list-style-type: none"> • To facilitate the deployment of safe, responsible, sustainable waste management from all sources; domestic, commercial, industrial etc. • To tackle issues surrounding the perception of waste management practices and technologies and establish greater understanding of what this entails. • To facilitate greater participation in recycling through identifying safe and responsible practice.

Economy, Education & Skills	
<i>Issues:</i>	<i>Collective Opportunities:</i>
<ul style="list-style-type: none"> • Regarding specialist technologies, are there contractors or operators within Wales or the UK to supply this need? Will these be financially or economically viable/feasible? • Is there an appropriate labour force or will training and upskilling be required? 	<ul style="list-style-type: none"> • To encourage the development of the Environmental Technology Sector within and across Wales regarding waste management. To directly meet or supply emerging need in terms of facilities, technologies or, further down the supply chain, with respect to green procurement

<ul style="list-style-type: none"> • Can the strategy provide an impetus to the Environmental Technology Sector and can R&D departments and can stakeholders such as Universities be usefully engaged in this context? 	<p>opportunities.</p> <ul style="list-style-type: none"> • To encourage investment in R&D and preferred alternative technologies by both public and private sector, and minimising the potential for investment in technologies which are not considered as offering a sustainable future for Wales' waste management. • To offer longer-term security of contract to commercial operators and a return on their investment, thereby increasing the attractiveness of investment in Wales. • To bolster the social enterprise sector in line with wider strategic objectives, to maximise the contribution which this sector can make to more sustainable waste management and associated socio-economic benefits of employment, training and engagement. • To offer new sources of employment and training, of particular benefit to areas with high socio-economic deprivation such as the Heads of the Valleys. • To use investment in new waste management infrastructure to act as a catalyst for regeneration in areas.
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B1.5 ASSESSMENT AND FINDINGS

B1.5.1 Level of Assessment

The draft strategy document was a concise document, intended to provide an overarching context and strategic direction for more sustainable waste management across the country as a whole. As such, the draft strategy document did not contain substantive detail on the implementation and delivery of policy at the local or sub-regional level and accordingly there were no site or location specific detail which could provide the basis for detailed analysis or assessment of this nature. The Appraisal was conducted at a commensurate level, providing analysis of likely significant effects at the policy level only and noting the critical importance of the Sector Plans and the detail which they are set to provide.

B1.5.2 Inter-relationship of Assessment Findings

The provision of baseline data, in particular, environmental data, was structured under key topic areas to allow for ease of comprehension and in line with key SEA Directive topics, as appropriate. This equally applied to the Review of Policies, Plans and Programmes. The Appraisal notes CCW's comments in regard to 'over-compartmentalism' and would like to reassure that during the course of the assessment, the issue of the environmental sustainability was taken as an integrated criteria for assessment, as indeed environmental sustainability was considered alongside social and economic sustainability in an integrated manner. It is recognised that for a strategy or

plan to be 'sustainable' it should meet the criteria of the respective strands and that includes ensuring environmental sustainability as a key element of this.

The inter-relationship between environmental criteria and effects is critical to determining the overall environmental sustainability of the Strategy. The Appraisal reaffirms the importance of considering how, for example, any change in emissions to air can have a significant impact on biodiversity, in particular, those habitats classified as being vulnerable or susceptible to change. Equally, air pollution has a direct and tangible effect on human health and wellbeing, highlighting the inter-connectivity of not only environmental factors, but environmental and social factors, amongst others.

The Appraisal has sought to further highlight the inter-relationships between factors in the text on key sustainability issues, highlighted previously in this Annex. It is also important to highlight that as details emerge on the nature and siting of infrastructure, within the Sector Plans, a more definitive assessment of environmental and wider sustainability impact will be possible and this will further highlight such inter-connections.

B1.5.3 *Dealing with Uncertainty*

The Draft Strategy set out the Welsh Assembly Government's ambitious agenda for more sustainable waste management but it is recognised that delivery of this agenda will require not only a substantive shift in terms of how we regard and 'manage' waste but also the engagement of stakeholders at all levels, to effect the change required. The Appraisal noted that such factors present a degree of uncertainty with respect to whether this agenda can be realised within the pressing timeframe, and importantly, *how* it was to be realised.

The assessment findings are necessarily, therefore, premised with the important caveat that uncertainty does exist and it is anticipated that the Sector Plans will provide greater clarity and certainty. It was not possible to state any further detail with regard to implementation, at the stage at which the Draft Strategy was assessed. The importance of further assessment (at Sector Plan level) was, however, noted from the outset by the Appraisal, as being critical, and this was accepted by the strategy drafting team.

B1.5.4 *Embedded Mitigation*

Where possible, adverse impacts should be avoided. Where adverse impacts are, however, identified, appropriate mitigation should equally be identified when considering whether such impacts can be facilitated within the assessment of the overall sustainability of the strategy. Mitigation of negative impacts upon the key sustainability strands is embedded in the draft strategy document, principally through:

- Commitment to Sustainability Appraisal of the more detailed Sector Plans;
- Importance of adherence to best practice;

- Incorporating best technologies;
- Commitment to ongoing review and analysis, in particular, when further details on implementation arise.

B1.5.5 *Cumulative Impacts*

The assessment has sought to identify the impacts of the Strategy across all strands of sustainability; addressing not only the benefit/disbenefit between strands, but the cumulative impact of affecting multiple strands. It is recognised that more detailed assessment of cumulative impacts can be undertaken once detail exists on the nature and location of forthcoming infrastructure, as well as mechanisms for delivery and approach specific to relevant sectors. As this detail was earmarked for inclusion in the Sector Plans, it was acknowledged that this will provide an opportunity for more meaningful analysis to be undertaken of cumulative impacts at this stage.

B1.5.6 *Habitats Regulation Screening*

A HRA Screening was undertaken and its recommendations have been, and will continue to be, considered by WAG as implementation of the Strategy is considered, and specifically, in the development of the Sector Plans.

B1.6 *SECTOR PLANS*

As noted previously, comments raised during the consultation period on the draft strategy document and Sustainability Appraisal Report will be thoroughly considered by the Sustainability Appraisals of the Sector Plans.

Recommended for consideration in the Appraisals of the Sector Plans:

- Further environmental indicators though noting that additional indicators have been included within the final version of the Strategy and that the indicators to accompany the Strategy are intended to have national coverage. More specific indicators can be developed at the Sector Plan level but also perhaps more usefully, at the regional and local level.
- CCW noted that it requested 'consideration for funding for programmes and developments derived from the Waste Strategy (to) be made conditional on relevant environmental assessments being undertaken and environmental issues being satisfactorily addressed in advance of funding being granted/offered'. This recommendation will be considered by WAG at the appropriate level but in line with the nature of this Appraisal, it is recommended that this be considered on a 'sustainability' basis and not solely taking into account environmental issues.

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