

**DRAFT DATED 9 February 2009**

**Sustainable Development Integration Tool**

for

**Welsh Assembly Government**

**Department for the Economy and Transport**

The purpose of this tool is to support the integration of SD into the earliest stages of decision making for DE&T Economic Development and Regeneration activities, and applies to the following levels:

- Business Plan or Programme development
- Area Regeneration Strategies, Area Plans and Frameworks
- Masterplans for Sites or Groups of Sites
- Development and Regeneration Projects

It provides the framework for the cross-functional teamwork that is critical to achieving sustainable outcomes.

This is a draft version for testing, and views are invited on any changes needed

## Sustainable Development Integration and Appraisal Tool

### 1. Background

Sustainable Development is a Statutory Duty on the Welsh Assembly Government, and the new Sustainable Development Scheme, “One Wales – One Planet”, (currently out to consultation will) places SD as the “Central Organising Principle” for the Assembly Government and the wider public sector in Wales.

The Welsh Assembly Government is also committed to challenging targets to reduce carbon emissions and for the diversion of waste from landfill, and has set environmental performance and resource efficiency standards for new buildings that receive funding from, or are built on land sold for development by, the Assembly Government.

These will have a substantial impact on the way we support business growth and regenerate communities, requiring substantial changes to the way we work.

This tool is intended to mirror the Policy Gateway Tool, apply the principles to the specific operational needs of DE&T.

### 2. Purpose of this Tool

In preparing this tool, we have reviewed earlier approaches used by DE&T.

This Tool is designed to be used by DE&T at the earliest stages of decision making. Our aim is integrate, or “Front Load”, SD into our thinking at all levels of business planning, strategy, programme development and project delivery.

This is particularly relevant to our regeneration activity, where our experience has demonstrated the importance of integrating SD principles and objectives into the earliest stages of strategy, masterplan preparation, and development projects.

The Tool has taken the core concepts around SD and converted them into a form tailored to meet the specific needs of DE&T. It will also provide a framework for reporting on actions taken and expected outcomes.

### 3. SD Integration – Objectives, Principles and Priorities

Note: The following section provides the background to the theory of SD principles and Objectives. It is included at this stage to explain the approach to SD Objectives that has been adopted, and may be omitted from the final version, unless it is thought that this explanation helps to convey a greater understanding of SD.

The strategic framework for SD at the UK level is in “One Future – Different Paths” (Defra 2005). This reviewed the core objectives in the 1999 UK SD strategy:

- social progress which recognises the needs of everyone;
- effective protection of the environment;
- prudent use of natural resources; and
- maintenance of high and stable levels of economic growth and employment.

And concluded that *“although that strategy stressed that these objectives had to be pursued at the same time, in practice different agencies focussed on those one or two most relevant to them”*.

“One Future – Different Paths” sets a new “purpose” for SD in the UK to show how Government will integrate these aims, to develop the earlier strategy, not depart from it. It states that the goal of SD:

will be pursued in an integrated way through a sustainable, innovative and productive economy that delivers high levels of employment, and a just society that promotes social inclusion, sustainable communities and personal well-being. This will be done in ways that protect and enhance the physical and natural environment, and use resources and energy as efficiently as possible.

It also redefined the guiding principles for SD as follows:

- Living within environmental limits
- Ensuring a strong, healthy and just society
- Achieving a sustainable economy
- Promoting good governance
- Using sound science responsibly

and stated:

These principles will form a basis for sustainable development policy in the UK. For a policy to be sustainable, it must respect all five principles. We want to achieve our goals of living within environmental limits and a just society, and we will do it by means of sustainable economy, good governance, and sound science.

The Priorities for action agreed at a UK level are:

- Sustainable Consumption and Production
- Climate Change and Energy
- Natural Resource Protection and Environmental Enhancement
- Sustainable Communities

The new SD scheme for the Assembly Government “One Wales: One Planet” the consultation on a new sustainable development scheme for Wales (November 2008) has two core principles:

- Involvement
- Integration

And it establishes a new set of priorities for Wales based around the “One Wales” commitments:

- A Healthy Future;
- A Prosperous Society;
- Living Communities;
- Learning for Life;
- A Fair and Just Society;
- A Sustainable Environment and
- A Rich and Diverse Culture.

(DN – the above justification can be omitted from the final version of the tool when we have gained acceptance of this approach. The aim is to prove that the 4 objectives we use are still valid under UK policy, and reflect current SD policy at a UK and WAG level),

#### Suggested final text for this section:

The founding concept of sustainable development is about meeting social, economic environmental and resource use objectives **simultaneously**. This tool is organised around these core objectives. These core objectives are then subdivided into sub-objectives that expand the meaning of the core objective in the context of DE&T activities. This is a relatively well understood and used approach, which emphasises creating ‘win-win’ solutions.

The successful integration of SD at any level depends on meeting the four core objectives of SD at the same time, and without pursuing any one or two at the expense of the others. We have reviewed and updated our previous approach to SD appraisal, and now propose the following 4 objectives:

- A Social progress which recognises the needs of everyone.
- B A sustainable economy and prosperous society.
- C Prudent use of natural resources – reducing our ecological footprint.
- D A sustainable natural environment.

For each objective, a number of sub-objectives are proposed that illustrate how the objective may apply to DE&T work.

#### 4. When to Use the Tool

For most effective integration, the tool should be used at the outset of the process. However, it can also be used to appraise a plan, strategy or project already designed, but it has to be accepted that at this stage successful integration is very difficult.

The flow chart below shows how the SD Integration tool is used at the inception stage when evidence and information is being collected. It will help to inform the data collection process, ensuring that equal weight is given to social, economic, resource use and environmental considerations.

Any conflicts between objectives can be identified, and solutions and SD objectives and actions built into the design and development stages.

## 5. How to use the Tool

The Tool is in two parts

- A proforma for the review of key issues and evidence, and the identification of solutions.
- A menu of possible SD responses/solutions/actions that can be selected from as relevant.

It can be used in two ways, to integrate SD at the inception stage, or to appraise plans or projects that have already been prepared and designed.

- 5.1 The “Integration Approach” will identify synergies and conflicts at the outset, and lead to positive outcomes. Sustainable integration means finding ways of pursuing each of the 4 core objectives, and related sub-objectives, simultaneously without undermining others and where choices between objectives are inevitable, to be explicit and democratic about the choices. This process can also be defined as “Conflict Minimisation” – finding solutions which reduce (but not necessarily fully overcome) conflicts between different objectives.



Any conflicts between objectives will be treated as a 'crunch issue', and ways of reducing or resolving them will be sought. Sustainable Integration goes beyond conventional appraisal techniques, and will enable us to identify and confront the big crunch issues. This in turn will enable us to search for innovative alternative options to overcome those issues and identify ways to adapt options or identify limitations. It might be necessary to undertake the process 2 or 3 times until all issues have been adequately addressed.

5.2 The "**Appraisal Approach**" is similar to the above, but reviews a plan/strategy/masterplan/project already prepared. It is more difficult in this case to retrofit sustainability solutions the need for which may be identified. It's necessary to have the full set of baseline technical information relating to all 4 objectives as for the Integration Approach, and it is essential to accept the need to retrofit sustainability solutions in order to remedy any crunch issues that are identified. This approach should diminish over time as more and more projects have SD integrated from the outset.

## 6. **The Process**

The process is as follows:-

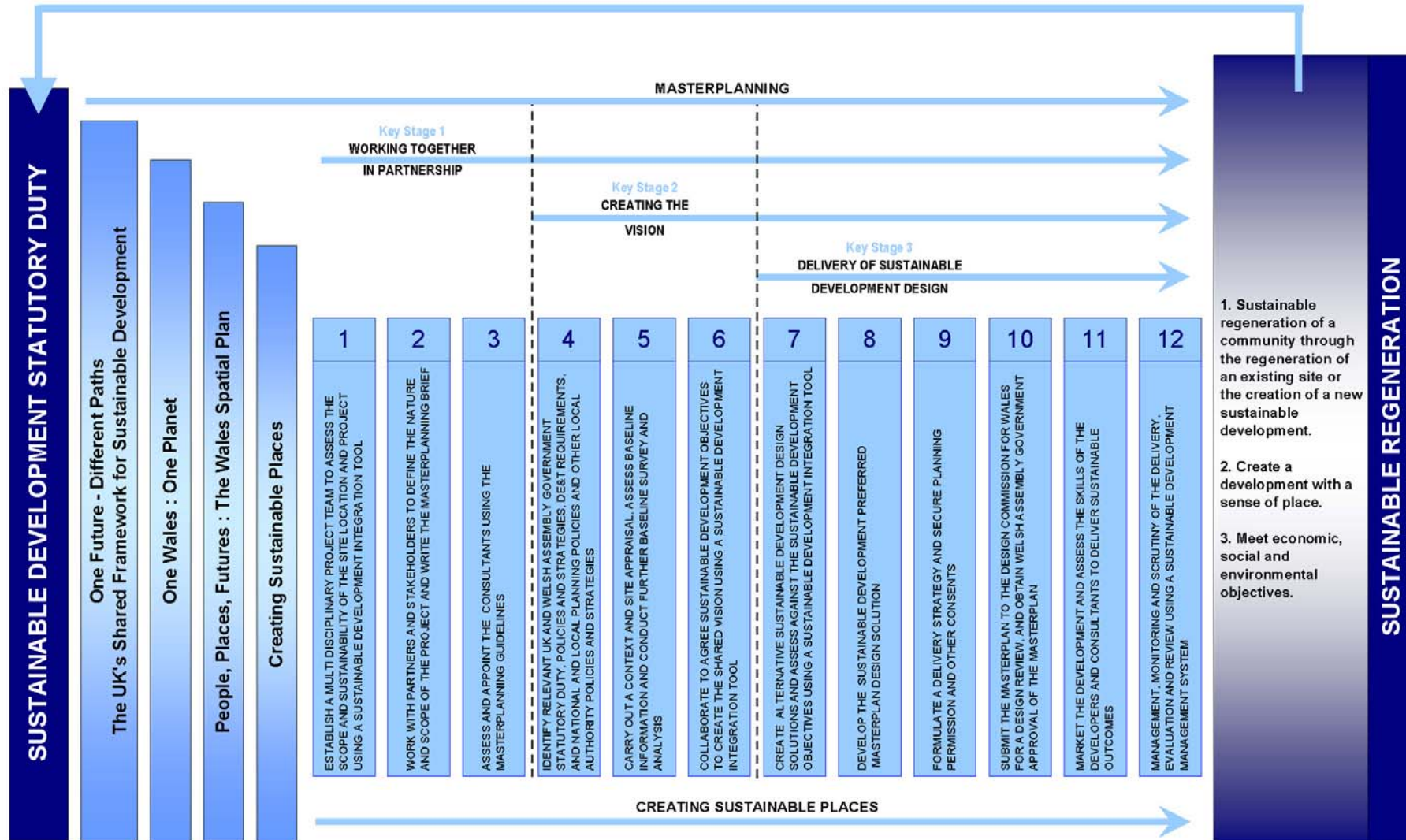
1. Use the SD Objectives as a guide to compile and summarise all relevant background data and information for the context of the plan, strategy, masterplan or site. Click here for data sources for carrying out a baseline sustainability assessment [[hyperlink data sources to be added](#)].
2. Bring together the baseline information and a project team with relevant expertise

3. Convene an appraisal group with a mix of expertise and interest, including all partners and stakeholders, and local community relevant to the plan area or site. This should include the Welsh Assembly Government team and relevant partners. (Hyperlink to the masterplanning guidance, gives further guidance on this aspect.)
4. The team should consider and review the context and baseline information for the project against the SD objectives listed.
5. Identify any potential conflicts between objectives, or “crunch issues” and suggest solutions. Examples of possible solutions are provided. These should not be followed slavishly, but are provided as examples relevant to the different scenarios, and other solutions may be proposed by the team.
6. Develop solutions which will be refined into bespoke site/area objectives, and which will form the starting point for the development of the plan, strategy, masterplan etc.
7. The tool should not be filled in prior to the appraisal meeting, but should reflect consensus reached at the meeting.
8. The process can vary in length from 1 or 2 hours to a whole day, depending on the nature and complexity of the project. For complex projects, several workshops could be held with different groups of interested partners and stakeholders, before the results and outcomes can be synthesised into a coherent whole.
9. Highlight gaps in knowledge on any aspect and agree how to acquire any necessary information in order to complete the assessment
10. Achieve consensus in the group, and complete the report making recommendations
11. The strategy/plan/masterplan/project can now be developed using the refined objectives developed through this process.

12. During the development of the strategy/plan/masterplan/project a number of alternative approaches or iterations can be developed and tested against the objectives set by the team.

7. The Flow Chart – see next page

# MASTERPLANNING FOR REGENERATION



Modified 12 December 2008

## 5.0 Sustainability Appraisal and Integration

### SD Appraisal and Integration Sheet

SD Objectives	Evidence from appraisal. Conflicts to be resolved, “Crunch” or Secondary Issues	SD Solutions (see menu sheets) SD Objectives to Take Forward to summary (page 23)
A <b><u>Social Progress which recognises the needs of everyone</u></b>		
A1 <b><u>Living communities</u></b> Promote strong communities and social cohesion.		
A2 <b><u>A Healthy Future</u></b> Provide safe and healthy environments and promote healthy lifestyles.		
A3 <b><u>A Rich and Diverse Culture</u></b> Celebrate and enhance our unique culture.		
A4 <b><u>Learning for Life</u></b> Promotion of high quality learning for life and engagement with		

sustainable development.		
A5 <b><u>A Fair and just Society</u></b> Promote active citizenship and ensure equality for all.		
A6 <b><u>Housing</u></b> Enable access to good quality, safe and affordable housing for all.		

### SD Appraisal and Integration Sheet

Objective	Evidence from appraisal. Conflicts to be resolved, “Crunch” or Secondary Issues	SD Solutions (see menu sheets) SD Objectives to Take Forward to summary (page 23)
<b>B <u>A Sustainable Economy and Prosperous Society</u></b>		
<b>B1 <u>Employment</u></b> Provision of a wide range of employment opportunities and training and the development of greener jobs		
<b>B2 <u>Investment</u></b> Encourage research and development to promote new economic activities, and create an attractive business environment to support investment and confidence		
<b>B3 <u>Local Economy</u></b> Strengthen the local economy by stimulating local or community enterprise, and capturing the benefits of inward investment.		
<b>B4 <u>Resource Efficiency</u></b> Promote measures to de-couple resource use and greenhouse gas		

emissions from economic activity.		
<b>B5 <u>A Confident and Successful Region</u></b> Create a Region with a clear and well-articulated vision, communication links and collaborative systems for delivery.		



**SD Appraisal and Integration Sheet**

Objective	Evidence from appraisal. Conflicts to be resolved, “Crunch” or Secondary Issues	SD Solutions (see menu sheets) SD Objectives to Take Forward to summary (page 23)
C <b><u>Prudent Use of Natural Resources – Reducing our Ecological Footprint</u></b>		
C1 <b><u>Climate Change and Energy</u></b> Promote energy efficiency to achieve 60% reduction of CO <sup>2</sup> emissions by 2050.		
C2 <b><u>Land</u></b> Promote appropriate and efficient use and re-use of land and soil resources.		
C3 <b><u>Flood and Water Management</u></b> Protect our freshwater and marine environment –reduce water pollution and the risk of flooding. Encourage the efficient use of water.		
C4 <b><u>Air and Atmosphere</u></b> Reduce all forms of air pollution.		
C5 <b><u>Waste</u></b> Facilities and targets to avoid;		

minimise; re-use or recycle waste		
<b>C6 <u>Renewable Resources</u></b> Promote resource efficiency and the sustainable use and management of natural resources.		

### SD Appraisal and Integration Sheet

Objective	Evidence from appraisal. Conflicts to be resolved, "Crunch" or Secondary Issues	SD Solutions (see menu sheets) SD Objectives to Take Forward to summary (page 23)
D <b><u>A Sustainable Environment</u></b>		
D1 <b><u>Biodiversity</u></b> Protect and enhance biodiversity and ecosystems		
D2 <b><u>Landscape</u></b> Protect and enhance the quality of the landscape.		
D3 <b><u>Climate change adaptation</u></b> Ensure economic, social and environmental infrastructure is secure or can adapt to climate change consequences.		
D4 <b><u>Built Environment</u></b> Develop and protect the quality of the local built environment.		



## SD Integration Solutions

Objective	Menu of Possible SD Responses/ Actions			
	Business Plan – Programme Development	Area Strategies/ Plans/Frameworks	Site Masterplans	Projects
<b>A <u>Social Progress which recognises the needs of everyone</u></b>				
<b>A1 <u>Living communities</u></b> Promote strong communities and social cohesion.	<ul style="list-style-type: none"> <li>• Understand and respond to community context</li> <li>• Address needs of local areas (rural proofing?)</li> <li>• Enable communities to influence decisions that affect their neighbourhood and quality of life</li> </ul>	<ul style="list-style-type: none"> <li>• Maximise community engagement particularly with marginalised or hard to reach groups</li> <li>• Understand needs of the local communities</li> <li>• Support local community and voluntary action</li> <li>• Leadership and commitment</li> <li>• Encourage a balance of land uses for jobs, housing, and social, cultural and amenity</li> </ul>	<ul style="list-style-type: none"> <li>• Site layouts which promote social cohesion</li> <li>• Places, not just housing estates</li> <li>• New developments connect to existing communities</li> <li>• Streets and squares designed as social places, e.g. village greens, home zones</li> <li>• Use Manual for Streets</li> <li>• Inclusion of disadvantaged and minority groups</li> <li>• Design out crime</li> </ul>	<ul style="list-style-type: none"> <li>• Involve local people in decision making – community participation</li> <li>• Ensure community engagement and local ownership</li> <li>• Accessibility to all social groups</li> </ul>
<b>A2 <u>A Healthy Future</u></b> Provide safe and healthy environments and promote healthy lifestyles.	<ul style="list-style-type: none"> <li>• Understand and address the factors contributing to physical and mental health.</li> <li>• Promote active life styles</li> <li>• Strengthen primary and community-based health services</li> <li>• Promote access to healthy,</li> </ul>	<ul style="list-style-type: none"> <li>• Locate health facilities within or close to key settlements, easily accessible to public transport</li> <li>• Promote outreach services for isolated areas</li> <li>• Promote healthy and active life styles, such as walking</li> </ul>	<ul style="list-style-type: none"> <li>• Ensure provision of open space, pedestrian and cycle links</li> <li>• Opportunities for growing local food</li> <li>• Fitness Trails</li> <li>• Countryside loops and links</li> <li>• Provide access to recreational space, leisure and cultural activities</li> </ul>	<ul style="list-style-type: none"> <li>• An opportunity for healthy lifestyles promotion</li> <li>• Plant fruit trees in amenity areas</li> <li>• Facilities for walking and cycling</li> <li>• Amenity areas focus on providing social and recreational areas for the</li> </ul>

	fresh, locally sourced food	and cycling <ul style="list-style-type: none"> <li>• Opportunities for growing local food</li> <li>• Promote “Transition Town” status</li> </ul>		community
<b>A3 <u>A Rich and Diverse Culture</u></b> Celebrate and enhance our unique culture.	<ul style="list-style-type: none"> <li>• Contribute to creating a modern bilingual society</li> <li>• Promote cultural arts or sporting activities</li> </ul>	<ul style="list-style-type: none"> <li>• Promote safe open clean spaces for leisure</li> <li>• Encourage opportunities to participate in cultural sport and recreational activities</li> <li>• Promote language development and impact</li> </ul>	<ul style="list-style-type: none"> <li>• Understand and respond to local cultural context</li> <li>• Instil a sense of pride</li> </ul>	<ul style="list-style-type: none"> <li>• Respond to ‘sense of place’ and local design styles</li> <li>• Use of bilingual signage</li> <li>• Bilingual communication and promote the use of Welsh</li> </ul>
<b>A4 <u>Learning for Life</u></b> Promotion of high quality learning for life and engagement with sustainable development.	<ul style="list-style-type: none"> <li>• Improved access to information and services including improved electronic communications</li> <li>• Improve learner outcomes effectiveness and efficiency</li> </ul>	<ul style="list-style-type: none"> <li>• Provide learning services in or close to key settlements and public transport routes</li> <li>• Support local communities to develop learning and skills for sustainability</li> </ul>	<ul style="list-style-type: none"> <li>• Integrate learning opportunities or ‘hubs’ into new developments</li> </ul>	<ul style="list-style-type: none"> <li>• Green travel plans for schools and other learning establishments</li> </ul>
<b>A5 <u>A Fair and just Society</u></b> Promote active citizenship and ensure equality for all.	<ul style="list-style-type: none"> <li>• Contribute towards the eradication of child poverty by 2020</li> <li>• Address barriers to accessing information services or jobs</li> </ul>	<ul style="list-style-type: none"> <li>• Cater for the needs of all social groups</li> <li>• Understand and respond to equality and diversity context</li> <li>• Maximise the role of social enterprise by providing support to the voluntary/community sector</li> </ul>	<ul style="list-style-type: none"> <li>• Include needs of disadvantaged and minority groups</li> <li>• Ensure safe and easy access for all to essential goods and services</li> </ul>	<ul style="list-style-type: none"> <li>• DDA compliance</li> <li>• Ensure an equitable approach to equality and diversity</li> <li>• Facilities accessible to all social groups</li> </ul>
<b>A6 <u>Housing</u></b> Enable access to good quality, safe and affordable housing for all.	<ul style="list-style-type: none"> <li>• Housing needs are understood and responded to where relevant</li> </ul>	<ul style="list-style-type: none"> <li>• Provision of housing sites strongly linked to public transport walking and cycling networks</li> </ul>	<ul style="list-style-type: none"> <li>• Maintain a mix of tenure and size – including affordable homes to ensure balanced sustainable communities</li> </ul>	<ul style="list-style-type: none"> <li>• Housing designed to a high quality to maximise occupant comfort and energy efficiency</li> <li>• Highest possible standards for Building for Life, Secured by Design and Inclusive Design</li> </ul>

## SD Integration Solutions

Objective	Menu of Possible SD Responses/ Actions			
	Business Plan – Programme Development	Area Strategies Plans/Frameworks	Sites Masterplans	Projects
<b>B <u>A Sustainable Economy and Prosperous Society</u></b>				
<b>B1 <u>Employment</u></b> Provision of a wide range of employment opportunities and training and the development of greener jobs	<ul style="list-style-type: none"> <li>• Tackle concentration of poverty and economic inactivity</li> <li>• Increase entrepreneurship and business diversity</li> <li>• Target new growth sectors for R&amp;D and Business Support</li> <li>• Encourage a culture of enterprise and innovation for a low carbon, low waste economy</li> </ul>	<ul style="list-style-type: none"> <li>• Ensure educational and training provision matches geographical and sectoral needs and addresses skills deficits affecting employability</li> <li>• Ensure that new economic opportunities are carefully matched to local workforce needs and potential</li> <li>• Encourage flexible employment opportunities</li> </ul>	<ul style="list-style-type: none"> <li>• Provide sites with well thought out mixed uses – suitable for local economic context</li> <li>• Consider how the local labour market can benefit from regeneration activities</li> </ul>	<ul style="list-style-type: none"> <li>• Maximise local procurement opportunities</li> <li>• Develop local supply chains</li> <li>• Enable local SMEs to compete fairly for construction and supply</li> </ul>
<b>B2 <u>Investment</u></b> Encourage research and development to promote new economic activities, and create an attractive business environment to support investment and confidence	<ul style="list-style-type: none"> <li>• Raise economic activity and/or income levels</li> <li>• Contribute towards the development of a knowledge based economy</li> <li>• Support innovation for a low carbon, low waste economy</li> </ul>	<ul style="list-style-type: none"> <li>• Provide high quality environmental and social infrastructure needed to attract and retain investment.</li> <li>• Foster community pride and confidence</li> </ul>	<ul style="list-style-type: none"> <li>• Provide quality sites to attract / retain quality investment and development</li> </ul>	<ul style="list-style-type: none"> <li>• Achieve ‘best value’ for project investment</li> <li>• Ensure value of investment is maintained by appropriate aftercare and management arrangements</li> </ul>
<b>B3 <u>Local Economy</u></b> Strengthen the local economy	<ul style="list-style-type: none"> <li>• Improve local business diversity and help for small</li> </ul>	<ul style="list-style-type: none"> <li>• Understand and respond to local business context</li> </ul>	<ul style="list-style-type: none"> <li>• Sites and premises suitable for new business start ups and</li> </ul>	<ul style="list-style-type: none"> <li>• Social clauses in contracts and procurement to promote local</li> </ul>

<p>by stimulating local or community enterprise, and capturing the benefits of inward investment.</p>	<p>businesses</p> <ul style="list-style-type: none"> <li>• Support for local businesses sustainably utilising natural resources – food/ timber / wildlife / water etc.</li> </ul>	<ul style="list-style-type: none"> <li>• Opportunities for value – adding and marketing of local natural resources</li> <li>• Ensure new development does not undermine the viability of town centres</li> </ul>	<p>local business needs</p> <ul style="list-style-type: none"> <li>• Think of parks and green spaces as economic landscapes</li> <li>• Green spaces for food production</li> </ul>	<p>sourcing, employment and training</p>
<p><b>B4 <u>Resource Efficiency</u></b> Promote measures to decouple resource use and greenhouse gas emissions from economic activity.</p>	<ul style="list-style-type: none"> <li>• Ensure full life cycle impacts of products and activities are understood</li> <li>• Promotion of environmental management and sector level support for Businesses</li> </ul>	<ul style="list-style-type: none"> <li>• Ensure locational needs of renewable energy supply and management, waste management, recycling etc are given priority in area plans or strategies</li> <li>• Focus new development on areas well serviced by physical infrastructure, particularly reducing the need to travel</li> </ul>	<ul style="list-style-type: none"> <li>• Integrate renewable energy and waste management infrastructure into site masterplans</li> </ul>	<ul style="list-style-type: none"> <li>• BREEAM Excellent</li> <li>• Code for Sustainable Homes level 3–4</li> <li>• Promote high standards of resource efficiency in businesses</li> <li>• Promote high standards of sustainable resource efficient design, construction and maintenance of buildings</li> </ul>
<p><b>B5 <u>A Confident and Successful Region</u></b> Create a Region with a clear and well-articulated vision, communication links and collaborative systems for delivery.</p>	<ul style="list-style-type: none"> <li>• Encourage innovative leadership and partnership working</li> <li>• Encourage engagement or collaboration within and between the public, private and third sectors</li> <li>• Development of integrated policy and service provision</li> <li>• Enhance awareness of WSP and develop its evidence base</li> <li>• Aim to stabilise then reduce Wales’s ecological footprint</li> </ul>	<ul style="list-style-type: none"> <li>• Develop compelling SD Vision for the area based on social evidence and environmental opportunities</li> <li>• Develop appropriate stakeholder and cross discipline working groups</li> <li>• Encourage our business and regeneration partners to integrate sustainability principles, learning skills and practices into their activities</li> </ul>	<ul style="list-style-type: none"> <li>• Develop compelling site vision and SD objectives</li> <li>• Seek Design Commission for Wales Guidelines</li> </ul>	<ul style="list-style-type: none"> <li>• Seek Design Commission for Wales Guidance and Approval</li> <li>• Develop Sustainable Development Management System (SDMS) for site</li> </ul>



## SD Integration Solutions

Objective	Menu of Possible SD Responses/ Actions			
	Business Plan – Programme Development	Area Strategies Plans/Frameworks	Site Masterplans	Projects
<b>C <u>Prudent Use of Natural Resources – Reducing our Ecological Footprint</u></b>				
<b>C1 <u>Climate Change and Energy</u></b> Promote action to achieve WAG targets for the reduction of carbon emissions.	<ul style="list-style-type: none"> <li>• Ensure a low carbon approach that minimises or eliminates carbon emissions</li> <li>• Promote sustainable travel patterns</li> </ul>	<ul style="list-style-type: none"> <li>• Ensure locational requirements of renewable energy infrastructure is accounted for</li> <li>• consider location of new development in a way which reduces the need to travel</li> </ul>	<ul style="list-style-type: none"> <li>– ‘Integrate’ renewable energy and waste management infrastructure into site masterplans</li> <li>– all masterplan sites to have an energy strategy</li> <li>– Develop site level green travel plans</li> </ul>	<ul style="list-style-type: none"> <li>• Low embedded energy systems</li> <li>• Develop green travel plan where appropriate</li> <li>• Meet WAG aspiration for building standards and zero carbon from new building from 2011</li> </ul>
<b>C2 <u>Land</u></b> Promote appropriate and efficient use and re-use of land and soil resources.	<ul style="list-style-type: none"> <li>• Avoid usage of soils with high carbon content (e.g. peat)</li> <li>• Manage soils to promote carbon capture and avoid losses of soil with high carbon content</li> <li>• Ensure infrastructure provision addresses regional need and integrates with existing provision</li> <li>• Promote technology for remediation of contaminated land</li> </ul>	<ul style="list-style-type: none"> <li>• Improve quality and sustainability of connections within and between key settlements and their hinterlands</li> <li>• Bring previously developed land into beneficial use</li> <li>• Protect valuable mineral resources</li> </ul>	<ul style="list-style-type: none"> <li>– Avoid imports / exports of material to and from site</li> </ul>	<ul style="list-style-type: none"> <li>• Manufacture soils / growing media from green waste and local materials</li> </ul>
<b>C3 <u>Flood and Water</u></b>	<ul style="list-style-type: none"> <li>• Avoid damage to sensitive</li> </ul>	<ul style="list-style-type: none"> <li>• Understand and respond to</li> </ul>	<ul style="list-style-type: none"> <li>– Design drainage system to</li> </ul>	<ul style="list-style-type: none"> <li>• Consider SUDS and rainwater</li> </ul>

<p><b><u>Management</u></b> Protect our freshwater and marine environment –reduce water pollution and the risk of flooding. Encourage the efficient use of water.</p>	<p>coastal and freshwater environments</p> <ul style="list-style-type: none"> <li>• Maintain the integrity of flood plains</li> <li>• Encourage new technology for the efficient use of water resources, and treatment of waste water</li> </ul>	<p>water quality and flood issues</p> <ul style="list-style-type: none"> <li>• Development aligned with sustainable use of water resources</li> <li>• Drainage basin level response to flood alleviation</li> </ul>	<p>protect against ground water and future water pollution</p> <ul style="list-style-type: none"> <li>– Use permeable hard surfacing wherever possible</li> <li>– Consider the use of SUDS wherever possible</li> </ul>	<p>harvesting</p> <ul style="list-style-type: none"> <li>• Use Green Roofs wherever possible (One Wales Commitment “Action on Eco Roofs”))</li> </ul>
<p><b>C4 <u>Air and Atmosphere</u></b> Reduce all forms of air pollution.</p>	<ul style="list-style-type: none"> <li>• Ensure cleaner technologies for power generation</li> <li>• Promote sustainable travel patterns</li> </ul>	<ul style="list-style-type: none"> <li>• Seek to improve air quality taking into account Air Quality Management Areas</li> <li>• Encourage safe routes to schools to minimise car travel for children</li> </ul>	<ul style="list-style-type: none"> <li>– Ensure development does not exacerbate existing Air Quality problems</li> <li>– Develop site level green travel policy</li> </ul>	<ul style="list-style-type: none"> <li>• Develop green travel plans where appropriate</li> </ul>
<p><b>C5 <u>Waste</u></b> Avoid; minimise; re-use or recycle waste</p>	<ul style="list-style-type: none"> <li>• Encourage strategies and technology for the management and reuse of waste, to minimise waste going ton landfill</li> </ul>	<ul style="list-style-type: none"> <li>• Location of waste facilities to have regard for proximity principle</li> <li>• Ensure locational requirement of waste facilities are catered for</li> </ul>	<ul style="list-style-type: none"> <li>– Develop site waste management plan</li> <li>– Allow for waste recycling infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>• Design in waste management / recycling opportunities for the occupiers</li> <li>• Minimum 10% of total value of materials used should derive from recycled and re-used content</li> </ul>
<p><b>C6 <u>Renewable Resources</u></b> Promote resource efficiency and the sustainable use and management of natural resources.</p>	<ul style="list-style-type: none"> <li>• Protect most versatile agricultural land and forest resources</li> </ul>	<ul style="list-style-type: none"> <li>• Develop opportunities for sustainable resource management value adding and marketing</li> </ul>	<ul style="list-style-type: none"> <li>– Develop site sustainable procurement strategies</li> </ul>	<ul style="list-style-type: none"> <li>• Use sustainably sourced materials</li> <li>• Use ..... or recycled aggregates</li> <li>• Use the BRE Guide to Specification</li> </ul>

## SD Integration Solutions

Objective	Menu of Possible SD Responses/ Actions			
	Business Plan – Programme Development	Area Strategies Plans/Frameworks	Sites Masterplans	Projects
<b>D A Sustainable Environment</b>				
<b>D1 Biodiversity</b> Protect and enhance biodiversity and ecosystems	<ul style="list-style-type: none"> <li>Promote opportunities for biodiversity gain across all programmes and actions</li> <li>Promote eco-connectivity and landscape scale approach to biodiversity.</li> </ul>	<ul style="list-style-type: none"> <li>Understand and respond positively to ecological context</li> <li>Seek to maximise permeability of the landscape e.g. for biodiversity</li> <li>Avoid development on sensitive sites</li> </ul>	<ul style="list-style-type: none"> <li>Avoid negative impacts on BAP habitats and species</li> <li>Measures to aid movement of biodiversity through or around the site</li> <li>Include existing or new areas of biodiversity value</li> </ul>	<ul style="list-style-type: none"> <li>Landscape proposals to include relevant local nature species and habitats</li> <li>Green roofs</li> <li>Opportunities for bats in structures</li> <li>Wetlands</li> <li>Construction impacts are managed to minimise disturbance to wildlife</li> </ul>
<b>D2 Landscape</b> Protect and enhance the quality of the landscape.	<ul style="list-style-type: none"> <li>Address degraded landscapes</li> <li>Protect and enhance valuable landscapes</li> <li>Promote the benefits of landscape quality on health and wellbeing</li> <li>Integrate green infrastructure into planning and design</li> </ul>	<ul style="list-style-type: none"> <li>Urban green space are linked to open countryside</li> <li>Ensure renewable energy installation take account of landscape character and visual assessment</li> <li>Parks and green spaces integrated, not just an add-on</li> </ul>	<ul style="list-style-type: none"> <li>Inform site development with appropriate landscape and visual appraisal</li> <li>Use CCW Natural Greenspace toolkit</li> <li>Minimise loss of tranquillity including levels of light pollution</li> </ul>	<ul style="list-style-type: none"> <li>Development respects the heritage and distinct identity of area</li> <li>Carefully integrate renewable generating installations using Cadw guidance where relevant</li> </ul>
<b>D3 Climate change adaptation</b>	<ul style="list-style-type: none"> <li>Address climate change consequences for land use, water resource biodiversity or wildlife</li> </ul>	<ul style="list-style-type: none"> <li>Develop ecological networks to promote the adoption of biodiversity to climate change</li> <li>Ensure new development is not located where it will be vulnerable to known or anticipated climate change</li> </ul>	<ul style="list-style-type: none"> <li>Layout site and uses to respond to known or anticipated climate change impacts</li> </ul>	<ul style="list-style-type: none"> <li>Design responds to anticipated climate change impacts</li> </ul>

		impacts		
<p><b>D4 <u>Built Environment</u></b>  Develop and protect the quality of the local built environment.</p>	<ul style="list-style-type: none"> <li>• Address poor quality urban environments</li> <li>• Protect and enhance our best urban environments</li> <li>• Promote the benefits of local environmental quality on health and wellbeing</li> </ul>	<ul style="list-style-type: none"> <li>• Take into account Cadw’s guidance on Traffic management in historic areas</li> </ul>	<ul style="list-style-type: none"> <li>• Carefully integrate new sites into existing urban environments using CABE/DCfW guidance and DE&amp;T “Creating Sustainable Places” Masterplan Guidance</li> <li>• Follow established “Place making” principles of urban design</li> </ul>	<ul style="list-style-type: none"> <li>• Development respects the heritage and distinct identity of area</li> <li>• Carefully integrate renewable generation equipment using Cadw guidance where relevant</li> </ul>

## 9.0 Appraisal Summary – Report of Appraisal team

This page is intended as a brief summary of the key issues and implications of the appraisal. It is not a substitute for reading the appraisal in full as that will address many more detailed issues that are not included below.

Report of Appraisal Team:

Name of Plan/Strategy/Site/Project\_\_\_\_\_

1. Summarise any significant “crunch issues” or conflicts together with suggested solutions

2. How will these affect the proposal, or the decision to proceed?

3. Is a more detailed feasibility study needed?

4. List the key issues to be taken forward to the development of the area strategy/framework/masterplan/project

5. Summarise the sustainability objectives that should be set for the Plan/Strategy/Site/Project – How can they contribute to the four objectives of Sustainable Development?

<b>1. Social progress which recognises the needs of everyone</b>
<b>2. A sustainable economy and prosperous society</b>

<b>3. Prudent use of natural resources - reducing our ecological footprint</b>
<b>4. A sustainable natural environment</b>

Appraisal form completed by \_\_\_\_\_

Date \_\_\_\_\_

Appraisal Group

	Name	Expertise (See Page 7)
1		
2		

3		
4		
5		

Checked by

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Date

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Approved by

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Date

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