Priority C: Climate change, sustainable design, flooding, sustainable energy

C. Climate Change, Sustainable Design, Flooding, Sustainable Energy

4.127 The strategy of the Local Development Plan is to support sustainable locations for development by locating housing and other development adjacent to services. The strategy of this Local Development Plan is also to seek to minimise the contribution that certain developments[116] will make to greenhouse gas emissions by constraining polluting or hazardous development in the Park (see paragraph 4.97), by promoting the use of renewable energy and by encouraging sustainable design in development. The strategy is also to accept the need to adapt to climate change and to deal with the consequences of climate change in a more forward thinking way, not for just the immediate Local Development Plan period.

4.128 At the end of the Local Development Plan period new development, and in some instances existing development where extensions are proposed, will be more sustainable in design. The Park will have a series of community based renewable energy projects as well as individual proposals in operation. In planning for the future changes in climate no new development has been encouraged in locations where there is a long term strategy to allow the sea or river to inundate or flood. Development will have been directed away from areas that are or will be prone to flooding and inundation within the next 60 years using information supplied by the Environment Agency. Development will have also been directed away from areas that would adversely impact on the long-term and natural evolution of the coast. Only new developments that can cope with likely flooding events will be sited there. As the climate changes there will be a need to understand and manage risks and consequences caused by flooding, including the implications for increased flood risk elsewhere caused by any particular development. The 2nd round of Shoreline Management Plans will, once prepared for the Pembrokeshire coastline, also help to identify these areas over longer time periods (up to 100 years). It will also need to be responsive to the rapidly evolving and ever-strengthening commitment of Government to tackling the causes and dealing with the consequences of climate change.

4.129 The strategy for development chosen along with the proposals under 'Sustainable Transport.' should also contribute to this agenda.

Sustainable Design

Policy 29 SUSTAINABLE DESIGN (Strategy Policy)

All proposals for development will be expected to demonstrate an integrated approach to design and construction, and will be required to be well designed in terms of:

a) Place and local distinctiveness[117] (see Policy 8)

b) Environment and biodiversity[118](see Policy 8)

c) Community cohesion and health[119](see Policy 30)

d) Accessibility (see Policy 52)

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[116] The main contributing sectors for CO_2 in the National Park are oil refinery emissions, domestic and commercial combustion; industrial combustion; nature (CO2 emissions from 'nature' covers CO2 arising from natural processes including respiration and decomposition, in natural and semi-natural areas. Also included are emissions due to landuse changes such as deforestation.); road transport; and other forms of transport.

[117] Includes landscape and townscape.

[118] Embraces historic landscape, geodiversity and biodiversity

[119] Includes also "secure by design", adaptability to changing circumstances, and neighbour amenity considerations.

e) Energy use[120]

f) Energy generation[121] (see Policy 33)

g) Materials and resources (see Policy 31)

h) Water and drainage (see Policy 32)

i) Waste[122] (see Policy 31)

j) Resilience to climate change[123]

Where planning applications are made to extend buildings energy, water and drainage efficiency improvements will be sought in the original building as well as in the extension where appropriate and practicable.

4.130 This policy will be supported by Design Guidance and a Sustainability Appraisal Tool to help applicants to comply with the policy and explain what the Authority requires to accompany planning applications. This will be based on a review of the Joint Unitary Development Plan Sustainable Design guidance taking account of new Assembly Government policy[124] as well as the proposal to extend application of the policy to encompass energy, water and drainage improvements to existing buildings. The integrated approach to design set out in the policy will encompass both design and construction phases of development.

4.131 The policy does not set out minimum percentage requirements for the contribution of on-site renewable energy sources to reducing carbon emissions as the Welsh Assembly Government intends to introduce national policy which will cover this area. The National Park Authority, working within this context will expect all applicants to address the incorporation of renewable energy resources within the designs for their schemes.

4.132 The reason for this approach, rather than setting percentage targets for contributions from renewable energy sources towards meeting the energy requirements of all new schemes, is that the Local Development Plan policy must work within the context of Welsh Assembly Government policy guidance, and in particular its proposal to introduce national policy requirements for the energy and emissions performance of new buildings, and to introduce progressively tougher targets over a relatively short timespan. Consultations have recently been carried out over the initial target levels and scope, and the National Park Authority has argued that such targets should apply to all new development from an early date.

4.133 The aim of this policy is to make more efficient use of water, for example, through rainwater harvesting, or employing a sustainable drainage system. There will however, still be a need for some drainage. To be well designed the development will still require adequate sewage disposal facilities and surface water draining. Capacity must be made available before the development can be occupied.

4.134 In respect of criterion h) early consultation with Environment Agency Wales and the Countryside Council for Wales should be undertaken to ensure that development is appropriately located, designed and/or phased to avoid adverse impacts on Natura 2000 sites in terms of water resource

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[120] Applicants will be expected to demonstrate a design approach which minimises energy use.
[121] Applicants will be expected to incorporate appropriate renewable or low carbon energy technologies including solar water systems, solar photovoltaic, wind, heat pumps and biomass.
[122] Includes waste minimisation and promotion/facilitation of recycling, in both the construction and operational phases.
[123] Includes robustness to flooding, coastal risk and other pressures arising for climate change.
[124] See Planning Policy Wales, Edition 3, July 2010 paragraphs 4.11.1 to 4.11.4.

demands and water quality, and development will be permitted only where there are assured water supplies from sources that would not have an adverse effect on Natura 2000 sites. In exceptional circumstances it may be necessary to reduce the number of units on allocations where it is the only effective mitigation to ensure no adverse effect on the integrity of Natura 2000 sites. Developments which might have the potential to affect European sites will be subject to Habitats Regulations Appraisal and Environmental Impact Assessment at project level. Water Cycle Studies (and surface water management plans) may also be necessary.

4.135 The policies below provide additional advice and guidance on addressing sustainable design issues.

Policy 30 **Amenity**

Development will not be permitted where it has an unacceptable impact on amenity, particularly where:

a) the development is for a use inappropriate for where people live or visit; and/or

b) the development is of a scale incompatible with its surroundings; and/or

c) the development leads to an increase in traffic or noise or odour or light which has a significant adverse impact; and/or

d) the development is visually intrusive.

4.136 This policy aims to protect the amenity enjoyed by people in their residences, workspaces and recreational areas. Amenity is defined as those elements in the appearance and layout of town and countryside which makes for pleasant life rather than a mere existence. Anything ugly, dirty, noisy, crowded, intrusive or uncomfortable is likely to adversely affect amenity.

Policy 31 **Minimising Waste**

Development must minimise, re-use and recycle waste generated during demolition and construction and provide waste management facilities of an appropriate type and scale as an integral part of the development.

4.137 Demolition, construction and excavation wastes are a valuable resource of material that can be recycled, although minimisation of waste should be the first consideration. This Authority would welcome the provision of Site Waste Management Plans to help this process. Avoidance of this material going to landfill would comply with the Landfill Directive. There are a number of existing recycling facilities within the County. Local recycling facilities for this material are supported in accordance with the Government's sustainable principles for waste management and for mineral planning. Recycling, composting and other waste minimisation measures help the environment by reducing the amount of land required for waste disposal by landfill or landraising and for the treatment of residual waste, which is left over following maximum recycling and composting.

4.138 The Authority will expect proposals likely to generate significant amounts of waste to include facilities for "green waste" composting and for the collection of waste suitable for recycling, and for residual waste.

4.139 There are different types of recycling provision for different types of wastes. The very local provision for household and non-domestic wastes would be neighbourhood collection, which could either be from the doorstep, kerbside or from a central collection point. All waste generating

developments should provide for the separate storage of types of waste including recycled, residual waste and food waste.

Policy 32	**Surface Water Drainage** **Development will be required to incorporate sustainable drainage systems for the disposal of surface water on site.**

4.140 The disposal of surface water run-off from development both during construction and after completion requires careful consideration in order to minimise its adverse environmental impacts. Traditional practices for disposing of surface water involve channelling the water away to the nearest watercourse to promote rapid run-off. This approach can lead to an increased risk of flooding downstream, reduced groundwater recharge (a reduction in the water perculating through the soil back to ground water) and the transmission of pollutants to watercourses. Sustainable drainage systems are promoted by the Environment Agency and supported by Dwr Cymru. They move away from traditional piped drainage systems to engineering solutions that mimic natural processes and include hard options such as permeable and porous surfaces and/or softer options such as vegetated landscape features, ponds, wetlands and grass swales.

4.141 Sustainable urban drainage systems fall into 3 broad groups which aim to:

- reduce the quantity of runoff from the site (source control);
- slow the velocity of runoff to allow settlement filtering and infiltration (permeable conveyance systems); and
- provide passive treatment to collected surface water before discharge into groundwater or to a watercourse (end of pipe systems).

4.142 Planning applications must be accompanied by an assessment of the suitability of sustainable urban drainage systems.

4.143 Source control should be an integral part of the design of most new development and developers should seek to incorporate source control sustainable drainage systems within the application site for surface water disposal into development proposals at the time of application. This applies to all surface water within the site - from roofs, roads and other surfaces and planning conditions will be used to ensure compliance.

4.144 It is recognised that there may be exceptional circumstances where source control would not be wholly achievable and where this has been demonstrated not to be practicable, developers should in the first instance, provide sustainable drainage systems for as much of the development as is practically possible. For the remainder of the development an acceptable alternative means of surface water disposal must be incorporated. Traditional 'hard' drainage systems should only be utilised once it has been demonstrated to the satisfaction of the National Park Authority, that sustainable drainage systems would not be successful.

4.145 The developer will be responsible for meeting all necessary costs for the planning, design and installation of sustainable drainage systems. Developers will also be required to enter into a planning obligation (known as a S106 Agreement) to meet the cost of adoption and providing long-term management. The Environment Agency does not support the inclusion of culverting and seeks the removal of culverting wherever possible.

Renewable Energy

4.146 The policy framework for renewable energy below provides positive support for renewable energy proposals which take account of the Special Qualities of the National Park (see Policy 8).

Policy 33 RENEWABLE ENERGY (Strategy Policy)

Small scale renewable energy schemes will be considered favourably, subject to there being no over-riding environmental and amenity considerations. Medium scale schemes also offer some potential and will be permitted subject to the same considerations. Large scale renewable energy schemes will only be permitted where they do not compromise the special qualities of the National Park. Where there are other renewable energy schemes already in operation in the area, cumulative impacts will be an important consideration.[125]

Onshore connections to off shore renewable energy generators will also be permitted subject to there being no over-riding environmental and amenity considerations. Developers requiring an undeveloped coastal location for onshore connections to offshore renewable energy installations will need to clearly justify this need in relation to Policy 8i) with the least obtrusive approach to design being taken.

4.147 The renewable energy policy below is supported by a Renewable Energy Assessment [126](to be published as draft Supplementary Planning Guidance when the Plan is adopted), which maps:

a) The technical potential for renewables
b) the potential environmental and socio-economic constraints
c) Taking account of a) and b) the resultant potential opportunities for a range of renewable energy

Guidance is also provided on assessing renewable proposals. Likely contributions for renewable energy and carbon emissions are also set out and have been incorporated in the Monitoring section of the Local Development Plan.

4.148 In terms of potential for renewables the Renewable Energy Assessment advises:

a) On biomass heat/power installations small scale (100kW – 300kW) and medium scale (10MW - 40MW) proposals are more likely to be appropriate
b) Similarly small scale anaerobic digestion plants within a complex of buildings are most likely to be acceptable for appropriate wastes (10kW).
c) The only realistic option for hydro power is micro schemes (<100kW).
d) The potential for ground and water source heat pumps exists throughout the Park area with the exception of air source heat pumps where there will be locational restrictions due to noise and visual impact.
e) There is very significant potential for the future development of solar hot water in the National Park.
f) On wind energy developments: There is potential for small scale proposals (10kW-50kW) and to a lesser degree medium scale proposals (50kW-330kW). Finally, there are extremely limited opportunities for larger scale proposals (>330kW – 3MW).

[125] This part of the policy refers to onshore proposals.
[126] Weblink to Renewable Energy Assessment: http://www.pcnpa.org.uk/website/default.asp?SID=1317&SkinID=5

4.149 There is also potential for offshore renewable energy developments which will have landward implications. As an exception to Policy 8i) the National Park Authority accepts that technically feasible routes for onshore connections may not be available only on the developed coast.[127] Innovative design solutions can often overcome the adverse impacts of normally incongruous development in such a sensitive landscape. Consideration of environmental impacts will include designated sites, such as Natura 2000 sites and undesignated sites.

Flooding & Coastal Inundation

Policy 34 FLOODING & COASTAL INUNDATION (Strategy Policy)

In planning for the future development of the National Park;

a) development will be directed away from those areas which are at risk from flooding now or as predicted for the future by the Environment Agency Development Advice Maps or Shoreline Management Plan 2[128] unless there are sound social or economic justifications in accordance with the advice set out in Technical Advice Note 15.

b) sustainable defence of the coast will be permitted to protect existing communities or assets where practicable and where they do not jeopardise the longer term and natural evolution of the coast.

4.150 Consideration of environmental impacts will include designated sites, such as Natura 2000 sites and undesignated sites.

Key Actions outside the Local Development Plan

4.151 Provision of and facilitation of energy/resource information service in the National Park. This has been set up with the assistance of the West Wales Eco Centre Newport who can provide a link to organisations beyond Pembrokeshire.

[127] National planning policy advises that the undeveloped coast will rarely be the most appropriate location for development (Planning Policy Wales, Edition 3, paragraph 5.7.2).

[128] The Development Advice Maps (2009) identify areas liable to flood based on historic events (Zone B) and the Environment Agency's flood zone 2 (Zones C1 and C2). The Environment Agency's flood maps zones 2 and 3 identify the probability of areas flooding based on modelled data. The emerging Shoreline Management Plan 2s will identify areas liable to flood from the sea, with a long timescale. The data from all three sources will be used to identify areas liable to flooding for the purposes of this policy. Flood Zone 2 means land which has — (i) between a one in 100 and 1 in 1000 annual probability (chance) of river flooding (1% -0.1%); or (ii) between a one in 200 and 1 in 1000 annual probability (chance) of sea flooding (0.5%-0.1%).
Flood Zone 3 means land which has — (i) a 1 in 100 or greater annual probability (chance) of river flooding (>1%) ; or (ii) a 1 in 200 or greater annual probability (chance) of sea flooding (>0.5%)
Shoreline Management Plan 2s are anticipated to be completed in 2011.