

Annex F

## Detailed Assessment of Cumulative Effects

**Annex F: Detailed Assessment of Cumulative Effects (detailed information on trends indicators etc is provided in the Annex of the SA report on the Environmental Baseline)**

Cumulative Effect	Cumulative/synergistic effects	Causes	Limits, thresholds, current status etc	Influence of the RES	Affected receptors	Relevant plans and programmes	Potential mitigation
<ul style="list-style-type: none"> <li>Increased Ecological Footprint of the Region (individual components of the footprint are also considered within the cumulative impact assessment)</li> </ul>	<ul style="list-style-type: none"> <li>Increased resource consumption may lead to increased prices for raw materials and higher prices for finished products thus making many products inaccessible to deprived families in the region</li> <li>Inefficient use of source resources such as water high quality land, and clean air coupled with poor management of waste, inefficient use of energy, low rates of recycling, reprocessing and materials recovery are all possible under current policy scenarios.</li> <li>Legislation is not producing a fast enough change in resource efficiency and</li> </ul>	<ul style="list-style-type: none"> <li>Consumption of non-renewable resources, fossil fuels, timber from sustainable sources, virgin materials, etc, to manufacture domestic and industrial goods.</li> <li>Lack of consumer education/demand management leading to unsustainable expectations. In addition, many of the resources are extracted outside the region leading to impacts on the resources available to other communities and impacts which</li> </ul>	<ul style="list-style-type: none"> <li>The region appears to be exhibiting a trend of increases in CO2 emissions and increases in waste arisings,</li> <li>Increased greenhouse gas emissions from transport growth and energy use, and increased consumption of water resources. All of this is likely to lead to an increase in the ecological footprint without significant policy</li> </ul>	<ul style="list-style-type: none"> <li>The increase in numbers of businesses and households will lead to an increased demand for resources both for building construction and during occupation.</li> <li>The RES can, via links with the RSSS, RHS and other regional strategies help to guide and influence design standards and materials specifications and</li> </ul>	<ul style="list-style-type: none"> <li>Residents</li> <li>visitors to the region</li> <li>regional businesses and workers in the region</li> </ul> <p>the natural environment (water, soils, biodiversity, land use etc).</p>	<ul style="list-style-type: none"> <li>Integrated Regional Framework (IRF),</li> <li>Regional Spatial Strategy (RSS),</li> <li>Regional Economic Strategy (RES),</li> <li>Regional Housing Strategy, Regional Transport Strategy, Regional Waste Strategy.</li> </ul>	<ul style="list-style-type: none"> <li>The region should develop a detailed plan of action and investment to increase understanding of the key components of the Region's ecological footprint – via the REEIO and REAP models and other tools. This research needs to be used as the first step in a detailed framework of actions, policies and targets that will assist in creating the behavioural change and the efficiency measures necessary</li> </ul>

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	consumption. Added/maintained growth under a 'business as usual' policy scenario in terms of actions by Central Government will increase the size of the regions footprint.	do not occur at the point of use especially environmental and social impacts, e.g., low wages, uncontrolled development, etc. • Patterns of development themselves, ie decentralised/ dispersed patterns of housing/business development can also produce inefficient patterns of resource use.	and behavioural change.	other determinants of resource intensify, product quality, etc. However, the shift in overall philosophy required cannot be delivered without policies and intervention from Central Government.			to tackle the components of the footprint. • Key organisations in the region (including SEEDA) needs to work with national government to produce policies and initiatives that will create an enabling environment for resource efficiency and resource consumption improvements.
<ul style="list-style-type: none"> <li>• Economic growth and prosperity leading to increased resource consumption and increased waste arisings</li> <li>• Decoupling of growth and</li> </ul>	<ul style="list-style-type: none"> <li>• Upward pressure on levels of waste generated is likely to make sustainable waste management increasingly difficult to achieve. This will be taking place within a context of falling landfill availability and increasingly stringent</li> </ul>	<ul style="list-style-type: none"> <li>• Higher levels of waste generation, including construction waste from growth in the region</li> <li>• Continuing population and increase in numbers</li> </ul>	<ul style="list-style-type: none"> <li>• AMR data, data from eco-footprinting, research carried out for the South East Plan all indicate likely increases in waste arisings.</li> </ul>	<ul style="list-style-type: none"> <li>• Housing and business growth (associated with continuing economic success and population growth) above current RPG levels, together</li> </ul>	<ul style="list-style-type: none"> <li>• Land use and soil quality</li> <li>• Transport Infrastructure</li> <li>• Public amenity</li> <li>• Air quality ( with the possibility of localised impacts on</li> </ul>	<ul style="list-style-type: none"> <li>• IRF</li> <li>• RES</li> <li>• Regional Waste Strategy</li> <li>• Regional Spatial Strategy</li> <li>• County Waste</li> </ul>	<ul style="list-style-type: none"> <li>• Implement actions that emphasise the need for greater domestic and business resource efficiency including waste management eg via focused support to</li> </ul>

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<p>prosperity from increased consumption of resources and increased waste generation will be difficult to achieve without major behavioural shifts by business and the domestic sector.</p>	<p>policy targets for diversion from landfill.</p> <ul style="list-style-type: none"> <li>• More waste production and also recycling will lead to increased transport of waste, with associated air quality, greenhouse gas and congestion impacts. The dispersed nature of much of the region's settlement pattern will also continue to contribute to this trend.</li> <li>• Air emissions from treatment technologies are likely to increase over the foreseeable future.</li> <li>• Increasing need for waste management capacity will create additional demands for land, particularly near to urban areas. The location of innovative waste management facilities may also give rise to planning issues.</li> <li>• Likely to contribute to an increase in the region's</li> </ul>	<p>of households over period of strategy contributing to growth in levels of waste generated.</p> <p>Exacerbation of existing problems with waste management/ reduction of waste from both domestic and business sectors (including agriculture) due to insufficient policy "drivers" to bring about the required level of behavioural change within appropriate timescales</p> <ul style="list-style-type: none"> <li>• Landfill Directive targets for diversion of biodegradable municipal waste from landfill.</li> </ul>		<p>with a projected 2-3% growth in GVA, will generate increasing quantities of domestic and commercial waste.</p> <ul style="list-style-type: none"> <li>• While the RES is focused on achieving growth more sustainably.</li> <li>• There are issues regarding the need for behavioural change that are beyond the direct control of the region and will require action by Central Government.</li> </ul>	<p>biodiversity and human health)</p> <ul style="list-style-type: none"> <li>• Impacts on regional businesses and regional residents from costs to businesses and council tax payers arising from higher disposal charges and the need to pay for investments in new waste management facilities.</li> <li>• Impacts on business competitiveness.</li> </ul>	<p>Plans</p> <ul style="list-style-type: none"> <li>• Local Development Frameworks</li> </ul>	<p>businesses, guidance to developers on recycling of construction waste, educational programmes etc</p> <ul style="list-style-type: none"> <li>• Identify key waste producing sectors in business (via the REEIO Model, Regional Observatory data etc) and develop targeted initiatives to help them reduce their waste production and resource consumption.</li> <li>• Develop regional and sub-regional initiatives targeted at the domestic sector.</li> <li>• Carry out additional work on the application of the</li> </ul>

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	<p>ecological footprint without the introduction of a range of policies and measures to improve waste management and overall resource efficiency in the business and domestic sectors</p>						<p>REEIO model to the regional economy to provide an improved evidence base for the impacts of waste management improvements on the economy and to improve the targeting of waste management policies.</p> <ul style="list-style-type: none"> <li>• Strengthen the region's knowledge and evidence base concerning resource efficiency within the key sectors of the regional economy via work on the REEIO and REAP models and liaison with SCP-NET.</li> <li>• Create a regional SCP-NET</li> </ul>

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							<ul style="list-style-type: none"> <li>• Initiate waste reduction and minimisation initiatives with all key industrial sectors in the region including agriculture-this should specifically include SME's given the structure of the region's economy.</li> <li>• Make innovation in waste management a focus of service development and R&amp;D within the region's environmental technology sector.</li> <li>• National Industrial Symbiosis Programme (NISP)</li> <li>• Business Resource Efficiency Programme (BREW)</li> </ul>

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							<ul style="list-style-type: none"> <li>• <u>Ownership.</u> SEEDA/The Environment Agency/Envirowise</li> </ul>
<ul style="list-style-type: none"> <li>• Insufficient good quality and affordable housing to meet the needs of the region</li> </ul>	<ul style="list-style-type: none"> <li>• House price inflation and low completion rates leading to a lack of affordable housing for young people and less well off groups in the region - likely to negatively affect economic participation rates, depreciation and social exclusion.</li> <li>• Lack of housing for key workers</li> <li>• Rural housing availability</li> <li>• Community mix /balance ie reinforcement of exclusion, creation of 'ghetto' communities both rich and poor and erosion of communities.</li> <li>• Increased commuting between areas of available/affordable</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of housing for new households that reflects actual and projected needs (various demographic factors e.g. ageing population, longer working lives, smaller households, in-migration</li> <li>• Insufficient housing completions.</li> </ul>	<ul style="list-style-type: none"> <li>• The projections on which both the RES and the RSS are based, even if different, make it obvious that the region's population is likely to grow significantly during the lifetime of the RES. This is likely to lead to pressure on both the quantity and quality of housing as well as to exacerbate issues relating to the provision of affordable housing. The</li> </ul>	<ul style="list-style-type: none"> <li>• Provision of additional housing</li> <li>• Provision of affordable housing</li> <li>• Development of mixed communities</li> <li>• Growth in employment</li> <li>• Demand for keyworkers</li> <li>• In-migration to this region</li> <li>• Economic tourism</li> <li>• Creation of distinct sub-regional economic growth</li> </ul>	<ul style="list-style-type: none"> <li>• Regional economy, especially public services, tourism, retail sector etc</li> <li>• Local communities</li> <li>• Land use</li> <li>• Young people/ young families.</li> <li>• Lower paid workers</li> <li>• Graduates</li> </ul>	<ul style="list-style-type: none"> <li>• RES</li> <li>• RSS</li> <li>• LDFs, Sustainable Communities growth areas</li> <li>• Housing Strategy</li> </ul>	<ul style="list-style-type: none"> <li>• All counties to meet affordable housing targets via LDF's. This will need to be facilitated by a pro-active programme of financial and planning policies to assist creation of affordable units.</li> <li>• Mechanisms for ensuring the achievement of targets for the provision of affordable housing will need to be developed. This will require development of a range of mechanisms/ approaches so as to ensure</li> </ul>

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	<ul style="list-style-type: none"> <li>Housing and major areas of employment much of it requiring the use of private cars. Consequences for climate change, air quality and quality of life more generally.</li> </ul>		<p>recent announcement of a 30% increase in Government investment in the South West may help to deal with this issue. Significant progress will need to be made since currently less than 2% of existing affordable homes are for sale. This is as at odds with the current and expected workforce profile for the region.</p>	patterns.			<p>flexibility.</p> <ul style="list-style-type: none"> <li>Development and regular reviews of housing need assessments not only of quantities of units by also types of units - also taking account of planned economic developments.</li> <li>Proactive engagement with developers to ensure that issues of provision of affordable units are considered as well as the overall mix of housing needed in each L.A.</li> <li><u>Ownership.</u> Housing Corporation Board, SWRDA Regional Assembly.</li> </ul>
• Decline in	• Drier summers are likely	• Increasing water	• Whilst water	• Economic and	• People	• IRF	• Sectoral demand

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availability of water resource. Decline in water quality	<p>to create a need for additional winter storage capacity.</p> <ul style="list-style-type: none"> <li>• Increasing competition for available land with other sectors, including housing, waste management, water resources, economic development, potentially leading to increased pressure on rural areas/designated sites.</li> <li>• Drier summers in combination with increased abstraction are likely to increase the risk of falling water quality in some vulnerable areas and may have impacts on aquatic or wetland habitats.</li> <li>• Increased abstraction and increased sewage discharge are likely to have cumulative adverse water quality impacts.</li> </ul>	<p>consumption, both in absolute terms and per capita.</p> <ul style="list-style-type: none"> <li>• New housing will place additional demands on water supply and sewerage infrastructure.</li> <li>• Regional climate change is predicted to cause wetter winters and drier summers, which may exacerbate predicted imbalances of demand and supply. Climate change is also likely to increase the need for agricultural irrigation.</li> <li>• The relative lack of effect of demand management measures to date. (Whilst demand</li> </ul>	<p>quality is currently regarded as showing a positive trend in the region the scale of growth, the need for investment in environmental infrastructure, current drought and likely increases in per capita consumption could lead to a decline in water quantity and quality.</p>	<p>housing growth will lead to increased water consumption. This is likely to create demand for new infrastructure, for water supply, storage, sewerage etc.</p> <ul style="list-style-type: none"> <li>• Demand management measures will help to reduce overall growth in demand.</li> </ul>	<ul style="list-style-type: none"> <li>• Wildlife habitats</li> <li>• Landscapes</li> <li>• Waste Quality</li> <li>• Construction industry (requirements for higher standards)</li> <li>• Water companies</li> <li>• Agriculture</li> </ul>	<ul style="list-style-type: none"> <li>• RES</li> <li>• LDFs</li> <li>• Asset Management Plans</li> <li>• Water company business plans</li> <li>• Regional Environment Strategy with AMR data and Environment Agency monitoring data</li> <li>• Catchment Flood Management Plans/ Shoreline management plans</li> <li>• River Basin Management</li> </ul>	<p>management plans, including residential/ business/ public sector</p> <ul style="list-style-type: none"> <li>• Improved building standards (water conservation and efficiency measures, specification of low consumption technologies and devices).</li> <li>• Improve evidence base on key resource users – via use of the REEIO model</li> <li>• Programmes of policies/actions targeted at increasing awareness of water demand management issues and encouragement of behavioural</li> </ul>

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		management should be a feature of water policy nationally and regionally, the effectiveness and efficiency of such measures is highly dependent on political willpower and the need to make decisions that are seen as unpleasant by many consumers).				Plans • Biodiveristy Action Plans/Local BAPs etc	change. • Increased water metering • Raising the profile of water in regional initiatives on sustainable construction and actions to implement Future Foundations. • <u>Ownership</u> . Water Companies, Ofwat, The Environment Agency
• Increased emissions from transport with local and regional impacts in terms of air quality, levels of CO <sub>2</sub> etc.	• Increased numbers of journeys, particularly by car, will increase air emissions and lead to greater air pollution. If congestion increases, this will exacerbate the impacts by increasing journey times. Local amenity is likely to be adversely affected near to major routes and feeder roads.	• Increasing number of people, households and cars will lead to greater numbers of cars in the region and is likely to lead to more car journeys. It is also likely to increase commuting into London by road and rail. • Continuing economic	• Trends in the region demonstrate increased use of private cars and as a result increasing levels of congestion, emissions from transport and localised air quality (and	• Spatial distribution of economic and housing growth affecting demand for road space and public transport investment. • Parallel development of housing and	• People – health and quality of life • Air quality • Biodiversity • Historic buildings • Local amenity • Regional economy • Climate	• Regional Transport Strategy • RSS– • Local Development Frameworks • Regional Housing Strategy	• Investment in infrastructure to alleviate congestion, but this is also likely to increase numbers of journeys (see cumulative impacts). • Introduction of demand management measures in congestion hotspots

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	<ul style="list-style-type: none"> <li>• Increased air pollution is likely to lead to greater adverse impacts on human health (these effects are likely to affect deprived/ excluded groups disproportionately-so called 'environmental exclusion').</li> <li>• Localised impacts on both biodiversity and potentially historic buildings as well as the overall character of areas where congestion occurs.</li> <li>• Improved access to services for the socially excluded is dependent on improved public transport services, as well as provision of services in convenient locations.</li> </ul>	<p>growth is likely to lead to more road freight (without a significant investment in the rail network) and is likely to increase the number of commuting journeys.</p> <ul style="list-style-type: none"> <li>• Increasing numbers of journeys may create greater congestion, although this is also dependent on infrastructure improvement schemes which are foreseen as part of the RSS.</li> <li>• Expansion of airport capacity in the South East will increase impacts from air traffic and ground transport movements.</li> </ul>	<p>environmental exclusion). This is projected to continue.</p>	<p>transport infrastructure.</p> <ul style="list-style-type: none"> <li>• Management of surface impacts of increase in airport capacity.</li> </ul>			<p>including congestion charging in major regional centres.</p> <ul style="list-style-type: none"> <li>• Key Regional Partners will need to ensure that its implementation of the RES and RTS provides infrastructure priorities in a way that anticipates development. It will also need to work with Central Government on measures to deliver a 'modal shift' in the region (this is not likely to be a package of measures specific to the South East but a national package of measures)</li> <li>• Sub-regions should be encouraged to</li> </ul>

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							<p>adopt strategies that promote concentrated rather than dispersed development. They should also identify priority investment needs to deliver public transport that will enable development.</p> <ul style="list-style-type: none"> <li>• Co-location of new housing and land earmarked for economic development.</li> <li>• Provision of walking and cycling infrastructure as standard for new housing developments.</li> <li>• <u>Ownership</u>. Regional Assembly and SEEDA</li> <li>• Local Authorities</li> </ul>

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<ul style="list-style-type: none"> <li>• Erosion of 'regional distinctiveness' of natural and built environment</li> </ul>	<ul style="list-style-type: none"> <li>• Site specific changes/losses can lead to a loss of character that whilst it is site based has large implications for changes to urban and rural landscapes and environments as a whole. Such changes are often incremental and 'erode' the overall quality of the built and natural environment.</li> <li>• Loss of rural and urban character (via losses of countryside, typical land uses, typical buildings and the historic environment)</li> </ul>	<ul style="list-style-type: none"> <li>• Loss of areas of typical countryside, typical buildings/ landscape types and land uses due to development.</li> <li>• Damage to monuments, buildings and historic sites including changes to their settings and surroundings. Loss of 'character' of settlements or of areas within towns or villages due to insensitive development, use of non-traditional materials, intrusive transport schemes, etc.</li> <li>• Lack of affordable housing driving local people out of the area</li> <li>• Impact of wider</li> </ul>	<ul style="list-style-type: none"> <li>• Current trends indicate that the region is facing changes to its landscape and historic environment, to local distinctiveness, to historic building resource. CPRE recent research published in 2006 suggests increasing levels of light pollution in the region and decreases in tranquil areas ie areas with low ambient noise levels. All of this suggests a potential erosion of distinctive landscapes and character of the</li> </ul>	<ul style="list-style-type: none"> <li>• Whilst the RES clearly recognises the need to protect and consider the countryside and the historic environment, the sheer scale and variety of the region's assets creates the potential for losses to occur as a result of developments facilitated or promote as a result of the RES. This may be of particular concern at local level since this is where issues of impact on 'character' or on individual sites are likely to be</li> </ul>	<ul style="list-style-type: none"> <li>• Rural and urban environments, sites of landscape significance, sites of heritage or archaeological importance, the overall character of urban and rural landscapes and settlements – loss of identity/ community reference points</li> <li>• Biodiversity</li> <li>• Landscape</li> </ul>	<ul style="list-style-type: none"> <li>• IRF</li> <li>• RES</li> <li>• RSS</li> <li>• Regional Housing Strategy, Regional Transport Strategy</li> <li>• LDFs</li> <li>• National Park, AONB, and other management plans and strategies</li> </ul>	<ul style="list-style-type: none"> <li>• Regional initiatives to support increased recognition of the 'fundamentals' of regional distinctiveness . Actions to create wider recognition of their economic significance especially in the private sector. These should be an integral part of future work on the environment driver and environmental limits.</li> <li>• The region needs to ensure that it has up to date landscape and historic landscape characterisations for all areas, that detailed information is available at sub-</li> </ul>

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		regional and national policies on local landscape and wildlife, e.g. increasing renewable energy capacity by siting wind turbines in or near protected sites	region.	most common.			regional and local level to guide development and that this area is adequately funded /resourced. <ul style="list-style-type: none"> <li>• Agreed regional design principles for rural and urban areas should also be a priority.</li> <li>• <u>Ownership</u>. Natural England Partners and English Heritage</li> </ul>
<ul style="list-style-type: none"> <li>• Increased CO<sub>2</sub> emissions – Climate Change Effects</li> </ul>	<ul style="list-style-type: none"> <li>• Growth in housing, transport movement, waste generating, energy use and other factors are likely to mean that implementation of the RES will lead to an increase in CO<sub>2</sub> emissions in the region.</li> <li>• The increase in emissions may be partly offset by policies/ measures that</li> </ul>	<ul style="list-style-type: none"> <li>• Primarily emissions of CO<sub>2</sub> from the combustion of fossil fuels. Energy use by industry and the domestic sector are the main influences along with transport-related emissions.</li> <li>• Transport emissions in particular are likely to rise</li> </ul>	<ul style="list-style-type: none"> <li>• Traffic and transport emissions, car usage and greenhouse gas emissions are all showing a tendency to increase in the region. The RES is likely to contribute to</li> </ul>	<ul style="list-style-type: none"> <li>• The increase in households and increases in energy use and use of private cars associated with this are likely to lead to increased emissions of CO<sub>2</sub>.</li> <li>• Given that the economy of the</li> </ul>	<ul style="list-style-type: none"> <li>• Residents</li> <li>• Businesses</li> <li>• Climate - weather patterns</li> <li>• habitats and species</li> <li>• landscape</li> <li>• infrastructure</li> <li>• water resources</li> <li>• tourism</li> </ul> <p>(all above both within</p>	<ul style="list-style-type: none"> <li>• IRF</li> <li>• RES</li> <li>• RSS</li> <li>• Regional Housing Strategy, Regional Transport Strategy.</li> <li>• LDFs</li> </ul>	<ul style="list-style-type: none"> <li>• Establishment of a clear CO<sub>2</sub> reduction target for the region during the lifetime of the Strategy (and development of targets for the post plan period). In line with government targets. There may be scope for more testing targets or</li> </ul>

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	<p>help to reduce/offset GHG emissions. The effectiveness of such measures and the timescale, over which they will be introduced, can only be partially controlled by the region itself. It is questionable that significant reductions will be achieved during the lifetime of the RES despite national and international targets.</p> <ul style="list-style-type: none"> <li>• The direct effects of GHG emissions connected with the implementation of the RES will be very difficult to identify. They are going to occur against a background of existing trends in emissions. Failure to tackle existing sources, for example the region's housing stock, will continue to place emphasis on the performance of both the</li> </ul>	<p>significantly without major policy and behavioural changes (see separate cumulative impact heading).</p>	<p>this trend.</p>	<p>South West is 'a victim of its own success' and hopes to continue to be so it is likely that regional CO<sub>2</sub> emissions will continue to increase and will only be partially offset by control measures without substantial central government intervention.</p>	<p>and outside the region)</p> <ul style="list-style-type: none"> <li>• South East economy</li> </ul>	<ul style="list-style-type: none"> <li>• BAPs</li> <li>• SFRAs</li> <li>• River Basin Management Plans</li> </ul>	<p>'stretch' targets given the scale of development in the region.</p> <ul style="list-style-type: none"> <li>• Development of clear CO<sub>2</sub>/GHG action plans with targets for key economic sectors and for construction activities in the region (in terms of building and construction standards).</li> <li>• Agreement on carbon neutrality principles for all development in the region (this should be done at a number of levels /thresholds (ie number of dwelling units, hectares of development etc) of development).</li> </ul>

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	<p>RES and the RSS</p> <ul style="list-style-type: none"> <li>• The likely impacts in terms of habitat/ species loss, increased incidence/severity of flooding, unpredictable weather patterns, etc, are also difficult to apportion to the RES however, without effective mitigation, the RES will be a contributor to these impacts.</li> </ul>						<p>These measures should address carbon offsetting both in-situ and ex-situ (ie, in the region or elsewhere in the UK/overseas).</p> <ul style="list-style-type: none"> <li>• Development of a regional strategy for climate change adaptation (with sub-regional 'chapters') to be implemented in tandem with the RSS and other regional strategies. This should include a specific action plan looking at the need/scope for biodiversity actions to assist in adaptation/conservation to meet the region's needs in terms of 'headroom' for species and</li> </ul>

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							habitats to adapt to climate change. • <u>Ownership</u> . SEEDA, SECCP, Environment Agency
<ul style="list-style-type: none"> <li>• Decrease in poverty and social exclusion</li> </ul>	<ul style="list-style-type: none"> <li>• The effect of the RES should be to reduce social exclusion if unfit and affordable housing are addressed effectively. The effect of the RES should be to reduce the number of residents affected by social, economic and environmental exclusion and deprivation.</li> </ul>	<ul style="list-style-type: none"> <li>• Social exclusion and poverty are both linked to economic exclusion and issues of access, education, skills and also environmental exclusion.</li> <li>• Poor health status also affects people's ability to work and their levels of social exclusion. Poor housing is also often closely linked to poverty and social exclusion.</li> </ul>	<ul style="list-style-type: none"> <li>• In generally social exclusion and deprivation levels are far below the national average. However, there are pockets of deprivation in the South East. These areas continue to suffer from persistently low rates of economic participation with associated issues connected with skills, health etc. This is demonstrated by IMD data for the most deprived wards in the</li> </ul>	<ul style="list-style-type: none"> <li>• The RES seeks to address poverty and social exclusion via actions to tackle economic participation rates, skill and training etc. These, in turn should have positive effects on the social determinant of health and socio-economic deprivation.</li> <li>• Improvements to the environment can lead to increased</li> </ul>	<ul style="list-style-type: none"> <li>• Residents of the region especially those in areas of deprivation.</li> </ul>	<ul style="list-style-type: none"> <li>• IRF</li> <li>• RES</li> <li>• RSS</li> <li>• Regional Housing Strategy, FRESA, Public Health Strategy.</li> <li>• LDFs</li> <li>• Local Area Agreements</li> </ul>	<ul style="list-style-type: none"> <li>• The RES recognises that deprivation and social exclusion are key issues to be tackled at sub-regional level. The RES implementation plan should contain clear actions to tackle deprivation and its causes.</li> <li>• <u>Ownership</u>. SEEDA</li> </ul>

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			region. It is also demonstrated by economic participation data for those areas in the South East.	recreational use by local residents, bringing health and social benefits			
<ul style="list-style-type: none"> <li>• Loss of Greenfield Land</li> </ul>	<ul style="list-style-type: none"> <li>• The use of previously developed land (PDL), if maximised, will help to reduce the overall demand on undeveloped/Greenfield sites. However, due to large number of factors affecting the use of PDL, not least the location of such areas, pressures on Greenfield sites are still likely to be strong. This demand will be strongest where there is low availability for land, low demand for PDL and when PDL is in flood plains. The overall effect of the RES should be a reduction in available</li> </ul>	<ul style="list-style-type: none"> <li>• The impacts of development in the region depend on the extent to which development can be accommodated in away that maximises the use of PDL whilst minimising the use of green fields sites</li> </ul>	<ul style="list-style-type: none"> <li>• At present there appears to be an unclear trend in terms of the use of Greenfield land in the region. The limited extent of PDL in much of the region combined with the scale of population growth may lead to increased pressure on Greenfield sites.</li> </ul>	<ul style="list-style-type: none"> <li>• The actions within the RES tend to encourage the use of PDL to satisfy regional housing and development needs. It is, however, the role of local authorities to assign specific areas for development.</li> <li>• The ability of local authorities to focus on the use of PDL will depend on the characteristics of</li> </ul>	<ul style="list-style-type: none"> <li>• Residents,</li> <li>• businesses, agricultural/green belt land.</li> <li>• Biodiversity</li> <li>• Land use/landscape</li> </ul>	<ul style="list-style-type: none"> <li>• RES</li> <li>• RSS,</li> <li>• Regional Housing Strategy.</li> </ul>	<ul style="list-style-type: none"> <li>• The RES Delivery Framework and the RSS needs to ensure that the use of PDL within the region is prioritised as a resource. This should include explicit recognition of the role of PDL in providing Green Infrastructure.</li> <li>• The Region should develop a strategy to maximise the productive use of PDL for economic, social and environmental benefits.</li> <li>• <u>Ownership</u>. SEEDA,</li> </ul>

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	<p>PDL.</p> <ul style="list-style-type: none"> <li>• A focus on use of PDL will also require the 'green infrastructure needs of development to be taken into account. This should incorporate existing areas of PDL of high biodiversity value to prevent erosion of urban biodiversity. Some PDL is more suitable for recreational use or flood storage.</li> </ul>			<p>the stock of PDL in their area. Key characteristics will include:</p> <ul style="list-style-type: none"> <li>• Pressures to develop new sites</li> <li>• Limits of PDL in some areas</li> <li>• Preference of some sectors for Greenfield sites.</li> <li>• Existing adjacent land uses</li> <li>• Accessibility</li> <li>• Degree of contamination</li> <li>• Current planning designations</li> <li>• Cost of development.</li> <li>• In some areas PDL is often used for low density, low value commercial uses. This may be due to current planning policies or the location of</li> </ul>			<p>Regional Assembly, Local Authorities</p>

Cumulative Effect	Cumulative/synergistic effects	Causes	Limits, thresholds, current status etc	Influence of the RES	Affected receptors	Relevant plans and programmes	Potential mitigation
				<p>particular sites.</p> <ul style="list-style-type: none"> <li>• The use of PDL is also likely to be conditioned by the type of housing/ target audience for a development. High-end developments seldom use PDL.</li> <li>• Levels of PDL vary widely across the region and this may severely constrain its contribution to the overall development of the region in many areas.</li> </ul>			
<ul style="list-style-type: none"> <li>• Loss of Biodiversity</li> </ul>	<ul style="list-style-type: none"> <li>• Potentially a further loss of habitats and species but also potentially biodiversity gains/ enhancements heavily</li> </ul>	<ul style="list-style-type: none"> <li>• Biodiversity is a key concern because of the ongoing loss of habitats and species due to development</li> </ul>	<ul style="list-style-type: none"> <li>• AMR 2005 data suggest some improvements in designated sites but also that</li> </ul>	<ul style="list-style-type: none"> <li>• Whilst the RES recognises the importance of biodiversity and the region's</li> </ul>	<ul style="list-style-type: none"> <li>• Habitats/species, tourism, rural economy, residents and visitors, businesses, regional</li> </ul>	<ul style="list-style-type: none"> <li>• IRF</li> <li>• RSS</li> <li>• RES</li> <li>• Regional</li> </ul>	<ul style="list-style-type: none"> <li>• Mitigation is likely to be most effective if regional partners are engaged to assist the region in</li> </ul>

Cumulative Effect	Cumulative/synergistic effects	Causes	Limits, thresholds, current status etc	Influence of the RES	Affected receptors	Relevant plans and programmes	Potential mitigation
	<p>dependent on quality of implementation/detailed planning.</p> <ul style="list-style-type: none"> <li>• Effects on habitats and species of regional, national and international significance such as these protected by SPAs, SACs, SSIs, BBRs etc</li> </ul>	<p>and human activity. Physical loss and fragmentation, disturbance, and factors such as pollution, overuse of chemicals etc are all of relevance.</p>	<p>there are sites which are still of concern. . .</p>	<p>environmental assets, the development process does not always adequately integrate the needs either of designated sites or wider biodiversity into its activities. Whilst designated sites often enjoy reasonable protection there is also a need to recognise that the region's biodiversity is heavily dependant on non-designated sites. It is also important that the region retains the flexibility to</p>	<p>image.</p>	<p>Biodiversity Strategy</p> <ul style="list-style-type: none"> <li>• Housing Strategy</li> <li>• Regional Transport Strategy</li> <li>• BAPs/LBAPs</li> <li>• LDFs</li> </ul>	<p>integrating biodiversity safeguards and opportunities into the detailed implementation of the RES and other regional strategies.</p> <ul style="list-style-type: none"> <li>• This should include strategic use of 'biodiversity potential and possible new areas of habitats/species protection.</li> <li>• All sub-regional strategies and LDFs should contain 'green infrastructure policies' that require the identification of existing green assets and a potential areas for new assets - this work should involve Wildlife Trust and other key local and</li> </ul>

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				<p>cope with the challenges to biodiversity posed by climate change.</p> <ul style="list-style-type: none"> <li>• The influence of the RES on biodiversity will be most direct at sub-regional and at local level in terms of the networks/ tapestry of biodiversity sites/habitats as well as biodiversity issues at individual sites. It will be important for the RES to address biodiversity at the ecosystem level.</li> <li>• Safeguards/ desig</li> </ul>			<p>regional partners.</p> <ul style="list-style-type: none"> <li>• The Region should develop standards for the provision of Green Infrastructure.</li> <li>• Provision of green infrastructure in sub-regional strategies and local development plans should also be required.</li> <li>• Local development plans should also specify 'standards' of green infrastructure provision/ accessibility for all new developments above a threshold number of units/number of hectares.</li> <li>• <u>Ownership</u>. Natural England partners, Wildlife Trusts, South East</li> </ul>

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				n standards need to be developed for the Region to ensure that biodiversity considerations receive the time/ funding that is needed to ensure that they are effectively addressed.			Biodiversity Forum, Environment Agency,.