



## SEFTON COAST PARTNERSHIP NATURE CONSERVATION STRATEGY

### BACKGROUND INFORMATION FOR WORKING GROUP: CLIMATE CHANGE

***“ Climate change cannot be accurately predicted so we need to be both vigilant and adaptable” National Trust 2005.***

Addressing the future impacts of now inevitable climate change on the distribution of habitats and species is probably the greatest challenge facing nature conservation in the 21<sup>st</sup> Century. Over the last 100 years global temperatures have risen by about 0.7 C and in central England the 1990s was the warmest decade since records began. The Intergovernmental Panel on Climate Change (IPCC) has concluded that most of the warming observed over the last 50 years is likely to be because of increasing concentrations of greenhouse gases due to human activity.

The introduction to the Government’s current consultation on an ‘Adaptation Policy Framework’ states “that it is now widely accepted that some degree of climate change is inevitable, regardless of our efforts to reduce greenhouse gas emissions. Therefore some adaptation is needed”.

Predictions of climate change must therefore underpin much of the medium to long-term thinking about coastal management.

Current predictions indicate that by the 2080s the annual average temperatures in the UK are expected to rise by 2-3 degrees Centigrade but could be as much as 5 degrees C. Habitats and species will need to be given the space to allow movement along corridors; rigid site boundaries will be no guarantee of security for some habitats and species. The sensitivity, adaptability and vulnerability of habitats and species will be determining factors in their survival.

Global sea-levels are rising and are predicted to be 4-14 cm higher than the 1961-1990 average by 2020 and 9-69 cm higher by 2080. The range in the figures is based on the IPCC low emissions scenario and high emissions scenario.

Not only are global temperatures rising, predictions for north-west England include more frequent summer droughts, wetter winters, increased storminess and extreme weather events. Such factors will have to be considered in any 50-100 vision for the Sefton Coast.

The concept of ‘adaptable management’ will need to be adopted by land managers: working with the underlying processes (geomorphology and hydrology), maintaining habitat diversity, protecting soils, creating buffer zones and developing strategies for invasive species.

We will continue to see changes to the mix and distribution of species on the Sefton Coast. For example some of the more ‘northern’ species may retreat to be replaced by ‘southern’ species. Already we have noted a number of southern insects expanding northwards. These include a number of dragonfly (e.g. Emperor Dragonfly) and butterfly (e.g. Speckled Wood) species which add interest to the area. However, the situation is complex and possible major changes in the movement of bird species or in the food webs in the ecosystem are not easy to

model. Climate change may also result in some benefits and opportunities depending on the approach to adaptation.

Provided that adaptable management can be implemented the impact of climate change should not diminish the relative importance of the Sefton Coast for nature conservation. So it is not the case, at present, that any great losses are expected although some vulnerable species and habitats may be put at more risk.

### **Climate change and the visitor economy**

In 1998 a regional climate change study reported that 'there are potential benefits resulting from climate change in some economic sectors, especially tourism and recreation...'. A more detailed study has just been completed (Climate Change and the Visitor Economy 2006). This concluded that the relationship between climate and visitor demand is complicated and the economic opportunities may not be this straightforward.

For the Sefton Coast (a case study) the conclusions were that changes to climate and visitor behaviour may bring new opportunities to Sefton. However, the ecological challenge to the dune system will be severe. Monitoring is essential to provide information on nature and recreational use. An opportunity now exists for the Sefton Coast Partnership to provide an international demonstration project for anticipating and managing the response to a changing climate.

See: [www.snw.org.uk/tourism/](http://www.snw.org.uk/tourism/)