Peak District

Monsall Dale in the White Peak area of the Peak District National Park

Risk Assessment

Over 30% of the Peak District National Park's rich and diverse landscape is designated of international wildlife importance. The National Park provides many essential services, including providing supplies of fresh water, the storage of carbon in the soils, and economic activities, such as farming, tourism and mineral extraction.

The Peak District National Park Authority (PDNPA) and its stakeholders assessed climate risks to the National Park. Addressing climate change is essential to delivering the PDNPA's statutory purposes.

Many of the important Peak District species and habitats are already at the extremes of their climatic envelope. An increase in temperatures will mean that more southern species are likely to be found within the National Park with a subsequent loss of species currently at their northern extreme. There is likely to be an increase in flooding due to wetter winters and more extreme rain events, creating a demand for flood water storage.

Hotter, drier summers will lead to an increased risk of wildfires which have a devastating effect resulting in habitat loss, threat to human and animal life and lead to a significant loss of carbon contained within the soils. Drought will put additional pressures on the viability of blanket bog and the drying out of the moorland.

The White Peak non-moorland areas already experiences water deficit which has current consequences for land management and this will be further exacerbated by hotter, drier summers.

There may also be changes in moorland management as a result of reduced water availability, decline in grouse numbers and changes in recreational pressures. These changes can affect the overall landscape character, biodiversity, and the cultural heritage component within and beneath the peat. Changes in moorland management also have economic and social impacts resulting from any changes in recreation, tourism and farming practices.

With drier summers predicted, the water flow in limestone rivers and streams may become more seasonal, concentrating pollutant levels.

Drier summers may also result in agricultural changes such as increased suitability for arable crops or, with wetter winters, increased demand for winter housing for livestock. All these issues have the potential to change the character and visual diversity of the landscape and the economic viability of upland farming.

Tourism businesses may benefit from warmer drier summers which lead to an increase in visitor numbers to the Peak District. This may result in additional pressures on the natural environment.

Business

Health & Well-being

Buildings & Infrastructure

Agriculture & Forestry

Natural Environment

Peak District

Peat erosion on Kinder Scout in the Dark Peak area of the Peak District National Park

How is the risk being addressed?

Potential adaptation actions have been identified in the PDNPA's report "Adapting to Climate Change in the Peak District National Park: First assessment of climate change risks, opportunities and actions". The support by the utility companies to large partnership projects such as Moors for the Future demonstrates their concerns relating to water quality. Increased soil erosion from drier summers and heavy rainfall leads to additional costs at water treatment works along with a silting up of reservoirs.

For more information:

The PDNPA's report "Adapting to Climate Change in the Peak District National Park: First assessment of climate change risks, opportunities and actions" presents the risk assessment matrices with potential actions.

National Park Landscape Strategy & Action Plan

Moors for the Future

There is a history of wildfires in the area with their resulting impact on habitats, species, water quality, release of carbon and restrictions on access.

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