

# The challenges to the environment in our National Character Area

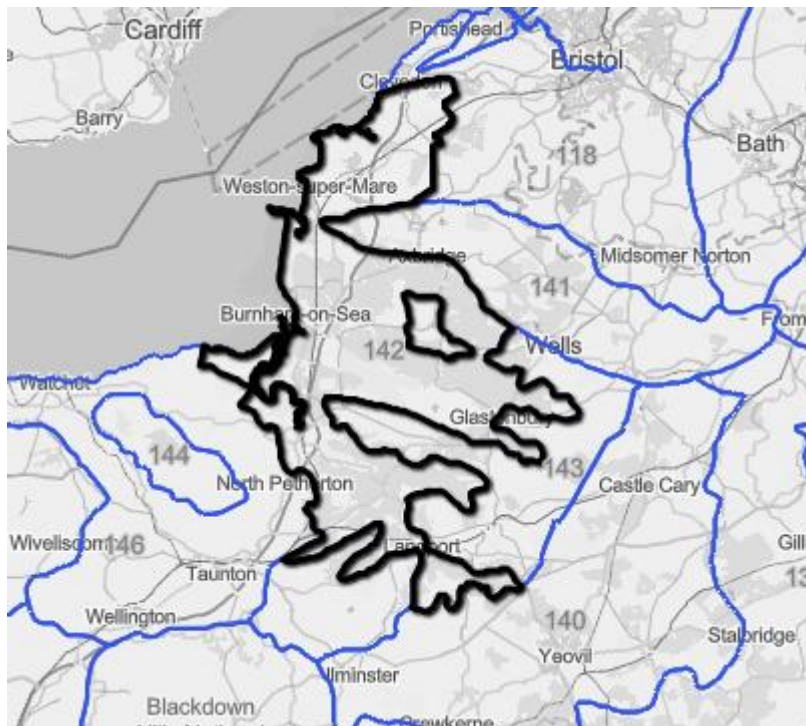
The Somerset Levels and Moors NCA is set between the Mendip Hills and the Mid Somerset Hills are bisected by the limestone ridge of the Polden Hills. The western boundary is formed by Bridgwater Bay and the Bristol Channel beyond.

It is a landscape of rivers and wetlands, artificially drained, irrigated and modified to allow productive farming.



Image of the land between Eastertown and Brent Knoll by Chris Mayes/Natural England

## Somerset Levels and Moors - Context Map



The coastal Levels were once mostly salt marsh and the meandering rhynes and irregular field patterns follow the former courses of creeks and rivers.

This contrasts with the open, often treeless, landscape of the inland Moors and their chequer-board-like pattern of rectilinear fields, ditches, rhynes, drains and engineered rivers, and roads.

The Levels landscape was probably established by the time of the Norman Conquest while the Moors remained an open waste

until enclosure and drainage between 1750 and 1850.

The biodiversity of the area is of national and international importance, reflected in the designation of 13 per cent of the NCA as Sites of Special Scientific Interest, a Special Protection Area (SPA) and a Ramsar site. (The Ramsar Convention is an international treaty for the conservation and wise use of wetlands. It is named after the Iranian city of Ramsar, on the Caspian Sea, where the treaty was signed on 2 February 1971.)

The Convention uses a broad definition of wetlands. This includes all lakes and rivers, underground aquifers, swamps and marshes, wet grasslands, peatlands, oases, estuaries, deltas and tidal flats, mangroves and other coastal areas, coral reefs, and all human-made sites such as fishponds, rice paddies, reservoirs and salt pans.

Wetlands are vital for human survival. They are among the world's most productive environments; cradles of biological diversity that provide the water and productivity upon which countless species of plants and animals depend for survival.

In the Somerset Levels More than 43,000 ha, two-thirds of the area, is classified as flood plain and coastal grazing marsh priority habitat: the largest lowland grazing marsh system in Britain. Wildlife abounds, most notably large assemblages of wetland and wading birds; more rare and scarce birds, such as the bittern, great white egret and recently reintroduced cranes; and both common and rare invertebrates and aquatic and wetland plant life, such as the greater water parsnip.



(Image by Mike Hannon)



Deep peat deposits and wetland habitats, as well as the coastal and estuarine muds, soils and habitats store and sequester large quantities of carbon. Peat was central to the character and history of Somerset's Avalon Marshes. It preserved some outstanding archaeology, was a vital fuel for local people, providing rich grazing through dry summers. In the 20th century the peat industry was a big employer of local people. It continues to be extracted on a small scale but

it is now declining and exhausted peat workings have been converted to create nature reserves rich in biodiversity. The sales of peat compost to gardeners will be banned from 2024, with the intention of eliminating all peat use by amateur gardeners, industrial growers and procurers by 2030.

The profiling of the areas of national character are a means by which Natural England hopes to guide land management and other activities to strengthen character and resilience, responding to pressures such as climate change. An example is the process of management and planning for change in the function of the network of watercourses. This includes improved flood management, water and soil quality, viable agricultural futures, protection of sub-soil archaeology and to increase the range and extent of habitats and species and their resilience to climate change.

The winter 2013-14 flooding of the Somerset Levels and Moors had major impacts on communities, property, transport infrastructure, tourism and agriculture. Such significant events will inevitably also affect the natural environment. The older, more established grasslands, which are of greater importance to wildlife, appear to have recovered well, whereas more recently established grasslands were either badly damaged or destroyed.



[JP007 edition 1 An assessment of the effects of the 2013-14 flooding on the wildlife and habitats of the Somerset Levels and Moors, PDF, 1.4 MB](#)

The general perception of wetlands has changed dramatically over the past 30 years. Formerly treated as wastelands, wetlands have been considered more recently as “biological supermarkets”. The goods and products they provide

(such as fish and grazing land), and “the kidneys of the landscape” because of the services they perform, such as flood management and water quality improvement.

Looking to the future, a healthy natural environment will be most resilient to extreme flood events and best placed to adapt to climate change. County Council led ‘WAVE’ (Water Adaptation is Valuable for Everyone [www.waveproject.eu](http://www.waveproject.eu)) project, managed by Somerset County Council, aims to better understand the likely impacts of climate change and the adaptations that will be required.



Climate change is only one factor. The development of housing in Somerset’s wetland areas poses several environmental risks, particularly concerning the Somerset Levels and Moors. One of the primary concerns is the potential for increased phosphate levels, which can lead to eutrophication. This process depletes oxygen in the water, harming aquatic life and disrupting the ecosystem.

It’s a delicate balance between development and conservation, but with careful planning and adherence to environmental guidelines, it’s possible to minimize the negative impacts on these vital ecosystems. Under new planning rules which became effective in 2023, any new housing developers must leave the natural environment in a considerably better state when they have completed their work.

Wetland farming involves choosing the right crops to enhance productivity, careful use of fertilisers and pesticides, and prevention of nutrient runoff to maintain the ecological balance. Sustainable farming practices help to preserve the natural habitats.

Peter Smith, September 2024

Links to articles used in the preparation of this document:

[Summary and Headline Statements of Environmental Opportunity - National Character Area Profiles \(nationalcharacterareas.co.uk\)](http://nationalcharacterareas.co.uk)

[The importance of wetlands | The Convention on Wetlands, The Convention on Wetlands \(ramsar.org\)](http://ramsar.org)

[Peat Industry - Avalon Marshes](#)

[Somerset: Rebuilding the Ecological Network | IUCN UK Peatland Programme \(iucn-uk-peatlandprogramme.org\)](http://iucn-uk-peatlandprogramme.org)

[Somerset, Phosphates and Housing | Somerset Wildlife Trust](#)

[Protected sites and areas: how to review planning applications - GOV.UK \(www.gov.uk\)](http://www.gov.uk)

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