

Figure 4 – The ecosystem services or public benefits derived from Dartmoor National Park

Ecosystem services	Dartmoor’s contribution
Cultural services	
Sense of place/ inspiration	A strong and varied landscape provides inspiration, local distinctiveness and a sense of place. Dartmoor has been the inspiration for much art and literature over the centuries and continues to inspire.
Tranquillity	Dartmoor is the single largest unbroken area of tranquillity in the south of England; 92% of the National Park is classified as tranquil.
Biodiversity	<p>Around one third of Dartmoor is designated as internationally and nationally important for wildlife, particularly the blanket bogs, valley mires, wet and dry heaths, ancient oak woods, rhôs pastures, and lowland pastures. There are numerous other areas of local interest for wildlife.</p> <p>Together, these habitats support a diverse range of species – some common, others rare – including three species where Dartmoor holds most of the world population (Vigur’s eyebright, Heckford’s pygmy moth and a cave dwelling shrimp) and an additional number of species for which Dartmoor holds most if not all the UK population such as bog hoverfly, blue ground beetle, Deptford pink and flax-leaved St. John’s-wort.¹ Plants and fungi are a vital part of healthcare and Dartmoor’s diversity of plant species could provide future medicines and products.</p>
Sense of history	Dartmoor is one of the most significant areas in western Europe for archaeology and the density of archaeological remains is reflected in more than 20,000 entries in the Historic Environment Record. This includes over 1,200 scheduled ancient monuments, and 2,565 listed buildings. Together, these sites and features tell the history of man’s interaction with the landscape over time, from Bronze Age round houses, settlements, industrial landscapes of spoil heaps, and mine buildings. The history of upland farming can be traced in the field patterns characterised by dry stone walls, stone-faced hedgebanks and hedges, larger rectilinear fields or ‘newtakes’, together with surviving

¹ Living Dartmoor

	medieval farmsteads.
Recreation	Dartmoor has over 2.3 million visitors a year; 75% are day visitors, and Dartmoor is accessible to nearly half a million people living in surrounding areas including Plymouth, Exeter and Torbay and smaller settlements. There are over 730 km of public rights of way and an additional 127 km of permissive paths. Forty per cent of the National Park (over 46,600 ha) is open access or common land.
Provisioning services	
Water supply	Dartmoor is the principal source of a large part of the water supplied to around 840,000 people in Devon. ²
Food	Farming on Dartmoor is primarily extensive livestock farming, with some dairy and arable farming on the fertile fringes. Annual production is just under 13,000 calves and 76,000 lambs, with a smaller number of poultry, pigs, and other livestock. ³ Farming is important for the delivery of other ecosystem services.
Timber, woodfuel	Around 12% of Dartmoor is wooded, ⁴ providing timber for a range of products and woodfuel for heating. Hedgerows are also a source of woodfuel and an important landscape feature around the moorland fringe.
Fibre	<i>Dartmoor's farmers have been producing quality fleeces for generations which can be used for a wide range of techniques and products including weaving, felting, knitting and twine.</i>
Genetic diversity	Dartmoor has three notable indigenous breeds – the Dartmoor whiteface and greyface sheep, and the Dartmoor pony. ⁵ All three breeds are well adapted for surviving Dartmoor's upland climate and their grazing habits play a vital conservation role.
Geodiversity	Dartmoor's rich geology provides a variety of resources which have been exploited in the past for granite, tin, copper, lead, silver and arsenic, leaving a strong legacy in the landscape and history. Many of these sites are now designated for their geological interest including 14 geological Sites of Special Scientific Interest (SSSIs) and seven mixed-interest SSSIs.

² South West Water

³ [Defra 2010 agricultural census](#)

⁴ National Forest Inventory (2012), Forestry Commission

⁵ [Rare Breeds Survival Trust \(2013\) Watchlist](#)

Regulating services	
Water quality	The majority of water on Dartmoor is classified as moderate or good. ⁶
Flood risk management	Dartmoor's blanket bogs and mires act as a sponge to hold rainfall high in the catchment, and woodlands and hedgerows also help slow down the passage of water, reducing flood risk.
Climate regulation (carbon storage and sequestration)	Dartmoor's soils, woodlands and grasslands are important carbon stores. The deep peat is a store for 10 megatonnes of carbon ⁷ – the equivalent of one year of CO ₂ output from industry in the UK.
Soil quality and erosion	<i>Soils form the building block for healthy ecosystems and the basis for farming.</i> There are six main soil types on Dartmoor. The highest parts of the moor are covered with peat deposits and acid upland soils (about 30% of the National Park). These are important for biodiversity, water retention and carbon storage. Off the moor, particularly in the east, the soils are acidic but fertile, consisting of gritty brown loams with a high content of organic matter in their upper layers. These support mainly pastoral farming with some fields of arable cultivation. ⁸ On the fringes are freely draining, slightly acid loamy soils which have good water infiltration that can help recharge groundwaters.
Pollination	The extensive area of semi-natural habitat, combined with species-rich hedgerows, meadows and traditional orchards provide an important source of nectar for pollinating insects.

⁶ Environment Agency (Water Framework Directive Classification 2009)

⁷ M Shepherd, Natural England, 2009 – 'Estimating carbon storage within English National Parks'

⁸ Soilscales, National Soil Resources Institute; Dartmoor Landscape Character Assessment