

Water Fact File

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Water Fact File – References

1. Environment Agency (2012) *Abstraction statistics for the South Downs National Park*, Environment Agency
2. Ofwat (2012) Data from Water Company June 2011 return to Ofwat available at: <http://www.ofwat.gov.uk/regulating/junereturn/>. Accessed 28/5/2012
3. Environment Agency (2012) *South East Internal Environmental Data Report for South Downs National Park*, Environment Agency
4. Environment Agency (2010) *Climate change impacts on Southern Region River Flows*, Environment Agency
5. Environment Agency (2009) *South East River Basin Management Plan*, Environment Agency
6. Environment Agency (2012) *Rainfall statistics for the South Downs National Park*, Environment Agency

Water Fact File

Water influences many of the special qualities of the South Downs National Park: naturally occurring high-quality freshwater is a product of the chalk and sandstone geology of the landscape; the associated aquifers and rivers support a rich and diverse array of wildlife and habitats; and sites of reliable water supply have influenced the locations of communities across the National Park, for example at Poynings and Fulking where springs issue from the scarp slope. Having a healthy water environment is therefore crucial to life in the National Park.

Environment facts:

The main rivers draining the National Park include:

River	Length within Park
River Itchen	58.5km
River Rother	56.3km
River Meon	33.3km
River Arun	31.1km
River Ouse	15.8km
River Cuckmere	9.9km
River Adur	5.7km

Average rainfall across the National Park varies from 807 mm/year in the west to 879 mm/year in the east.⁶ Rainfall during autumn/winter 'refills' the aquifers supporting river flows and abstraction. Refilling usually only occurs in these seasons when evaporation rates are lower and trees are not in leaf.

Agricultural land use in the Rother Valley causes soil erosion. This impacts river water quality and ecology, contributing to the river not achieving 'good status' under the WFD.⁵

Internationally designated wildlife sites such as Chichester and Langstone Harbour Special Protection Area (SPA) depend on freshwater contributions from the chalk of the South Downs National Park to sustain habitats.

Climate change is predicted to impact water in the National Park⁴. Groundwater fed rivers such as the Meon could have summer flows reduced by 5–10%. Rivers with clay catchments such as the Ouse could have summer flows reduced by 30%. This would impact water resources and water quality, for example less dilution of discharges from waste water treatment works.

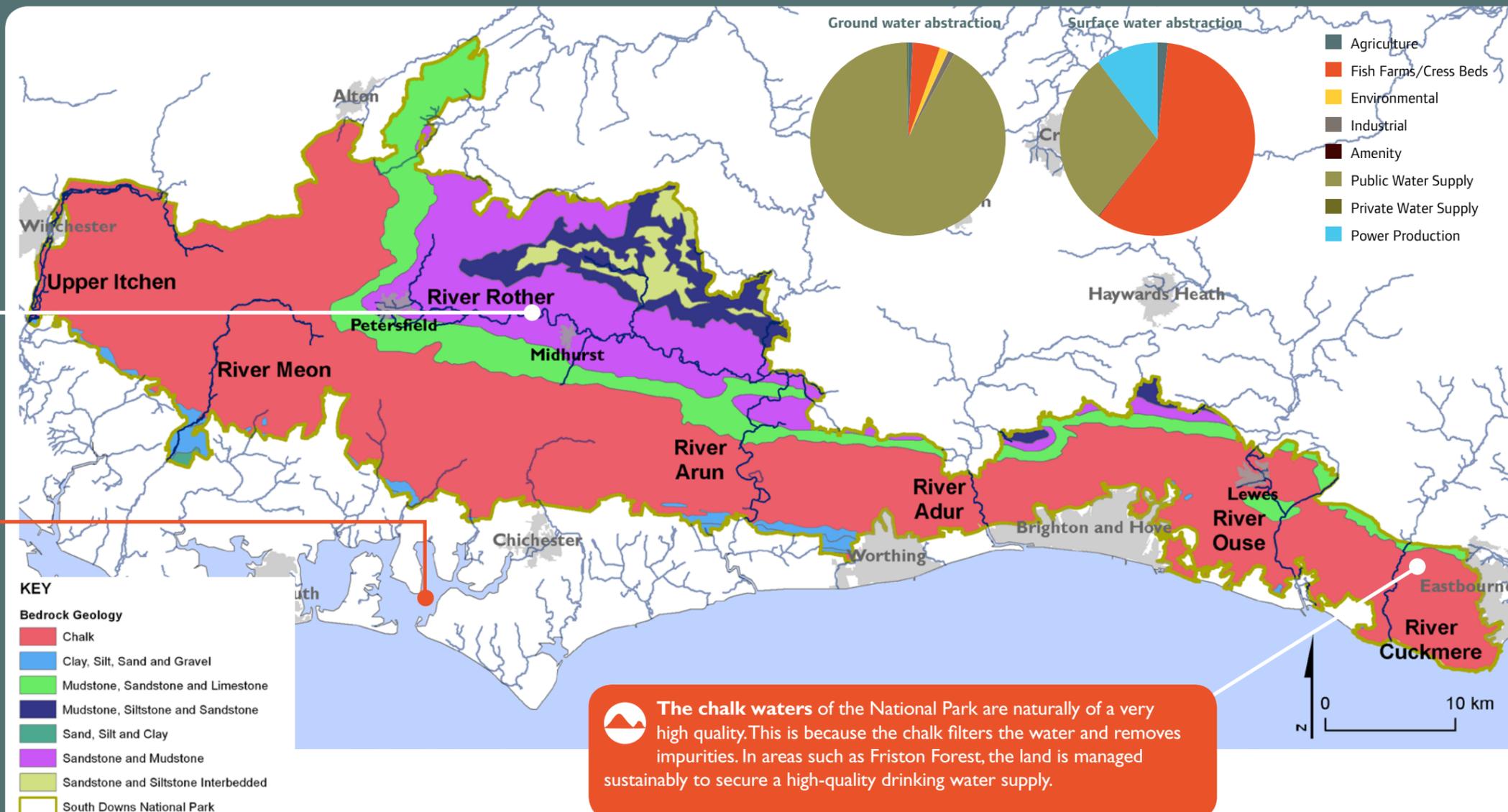
Usage facts:

Abstraction for public water supply from the National Park supplies 1.2 million people. This includes the communities within the National Park, the towns and cities of the coast, and parts of north Sussex and Surrey.

Groundwater abstraction from the National Park totals 215,190 million litres per year – or 86,076 Olympic swimming pools: 92% is for public water supply.¹

Surface water abstraction from the National Park totals 125,514 million litres per year – or 50,206 Olympic swimming pools: 59% is for fish farming; 29% for public water supply.¹

The population reliant on water sourced from the National Park uses an average of 170 litres per person, per day. The national average is 159 litres per person, per day.² This high demand is reducing the amount of water available for the environment.



Ecology facts:

Ecological status of streams and rivers in the National Park:

- ▶ 15% good or high ecological status
- ▶ 41% poor ecological status³

Chemical status of streams and rivers in the National Park:

- ▶ 54.6% good or high chemical status
- ▶ 45.4% poor ecological status³

Chemical status of ground-water in the National Park:

- ▶ 27% good or high chemical status
- ▶ 73% poor chemical status³

Quantitative status of ground-water in the National Park:

- ▶ 10% good quantitative status
- ▶ 90% poor quantitative status³

Ecological status of estuaries in the National Park:

- ▶ 100% moderate ecological status³

Chemical status of estuaries in the National Park:

- ▶ 100% good chemical status³

Ecological status of coastal waters of the National Park:

- ▶ 100% moderate ecological status³

Chemical status of coastal waters of the National Park:

- ▶ 100% moderate chemical status³

Bathing water quality in the National Park:

- ▶ 100% of sites meet the guideline standards of the European Bathing Water Directive³

The Water Framework Directive

The European Water Framework Directive (WFD) helps protect and enhance the quality of our water environment, for example, rivers and groundwaters. The WFD classifies the status of water bodies in terms of ecology, chemistry, and for groundwaters, quantity (i.e. how much water is abstracted).



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The Environment Agency is the lead authority for the WFD. However, the South Downs National Park Authority, Natural England, local water companies and River Trust are among the key partners in helping to deliver the aims of the WFD across the National Park.