

15 Eutrophic standing waters

Typical of hard water areas in the lowlands of southern and eastern England, these have high nutrient levels, supporting dense, long-standing blooms of algae in summer and a great diversity of species. Two plants are characteristic, fennel-leaved pondweed *Potamogeton pectinatus* and spiked water-milfoil *Myriophyllum spicatum*. A large number of invertebrate species and coarse fish such as roach *Rutilus rutilus*, tench *Tinca tinca* and pike *Esox lucius* may occur. The abundant food supports important bird populations. Phosphorus levels in the water, including that found in the plankton, are typically at least 0.035 mg/l and inorganic nitrogen levels are 0.5 mg/l or more. Natural and man-made still waters are both covered by the national plan, but not small pools, ponds or brackish water. The plan does include some artificially enriched waters.

Status

The total UK resource has been estimated at roughly 1785 km², of which England holds an estimated 532 km² based on 80% of its still, inland water being eutrophic. There is no estimate of the regional resource, but sites are presently being identified as part of the national work. There is little information regarding eutrophic waters and the conservation of biodiversity. An inventory of eutrophic standing waters has not yet been produced and the definition for inclusion of sites must still be clarified, but sites below have been identified from a report on SSSI eutrophication. Other sites with algal blooms have been identified in work by the Toxic Algae Task Group of the Environment Agency.

Hornsea Mere SSSI is important for its bird populations, including wintering goldeneye *Bucephala clangula*, breeding reed warbler *Acrocephalus scirpaceus* and post-breeding flocks of little gull *Larus minutus*. It was formerly mesotrophic.

Table 21: SSSIs with total phosphorus concentrations of greater than 0.035 mg/l¹

Site	Local Planning Authority	Natural Area	Extent
Hornsea Mere	East Riding	Holderness	140 ha
Pocklington Canal	East Riding	Vale of York & Mowbray	~ 32 miles
Semerwater	YDNPA	Yorkshire Dales	35 ha
Denaby Ings	Doncaster	Southern Magnesian Limestone	7 ha

Threats

Threats include pollution by excessive nutrient enrichment (eutrophication) from sewage, organic and inorganic fertilisers; water abstraction; the introduction of species not natural to the water body and damage from recreation such as wave erosion, the stirring up of the bed and disturbance. Severe eutrophication can cause great losses of biodiversity. Changes in temperature due to global warming could greatly effect this ecosystem.

Map 19a: The locations of eutrophic standing waters in the region, shown by local planning authority boundaries



Map 19b: The locations of eutrophic standing waters in the region, shown by Natural Areas

