



Coastal Sand Dune

Local Biodiversity Action Plan

Associated Species Action Plans:

- Natterjack Toad,
- Belted Beauty Moth



Current status

Nationally sand dune habitat is seen as 'Unfavourable with some improvements' - The total area of sand dune in the UK is recorded as 54,500 ha. European - 'Unfavourable declining' - Sand dunes are a declining and threatened habitat throughout Europe.

The sand dune habitats in Wirral cover approximately 80 ha. (approx. 0.15 % of UK area) this represents all of Cheshire's sand dune resource

Threats

- . * Erosion & Accretion
- * Falling Water Levels - The regime of pumping drainage water from the Royal Liverpool Golf Course has a significant impact on the Dune slacks at West Kirby, especially the breeding success of the Natterjack Toad population. The significance of this issue however, is not widely agreed.
- * Grazing
- * Recreation - An estimated 70% of present sand dune habitat lies within the courses. Although the



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nature conservation interest of Wallasey and Royal Liverpool golf courses is kept quite high due to sensitive management of large areas of rough, recognised in their status as SBIs, the management of these sites as golf courses has necessarily resulted in depreciation from their potential value. The Leasowe Golf Course being smaller (approx. 30 ha) has little area of rough, and has therefore no significant sand dune habitat. Heavy public use of the West Kirby frontal dunes, Meols and the Leasowe dunes has resulted in large amounts of erosion. Although presently not as severe as in the past it is still a major problem.

* Coastal Defences - The extension of the West Kirby Marine Lake (1986/7) has resulted in increased deposition of sediments in front of the West Kirby dunes. The coastal defences in the Meols Moreton and Leasowe area were first built in 1794 to replace the rapidly eroding sand dunes. They have had the effect of cutting off the sand supply from the beach. The existing sand dunes are now threatened by this lack of sand supply, whereas the former Moreton sand dunes have completely disappeared. The breakwaters in Leasowe Bay have resulted in the accumulation of sediment, and new dunes are forming at the eastern (downwind) extremity.

* Beach Management - Mechanical beach cleaning takes place at West Kirby, Hoylake, Leasowe Bay, Wallasey and New Brighton. This removes much of the strandline and many seedlings in particular of *Puccinellia maritima*, and so retards or prevents natural succession. There is also regular digging and ploughing of salt-marsh vegetation at Hoylake, which likewise prevents succession. Public access by vehicle is not allowed although occasionally occurs.

* Tree Planting - Much dune management prior to 1989 consisted of planting trees to stabilise the dunes. This was most widespread in the Leasowe dunes, where unfortunately Hybrid Poplar and Elm became established. West Kirby and Meols dunes are relatively free of trees.

* Development - Much of Hoylake, Meols and parts of West Kirby and Wallasey are built on former sand dunes, an estimated 400ha (5 times the present area) has probably been lost to development. This is difficult to estimate because of the inaccuracy of old maps.

* Tipping - The largest area to suffer from this is Leasowe Bay. Inert hardcore was dumped here until 1978. Together with sand extraction from the dunes by Leasowe Golf Club, approximately 3 ha of sand dunes have been lost due to these schemes. Small scale tipping of sand collected from beaches has taken place in West Kirby and Leasowe dunes.

* Sand Extraction - The largest area to suffer from this was on Leasowe Golf Course, see above. There is an issue of potential sand extraction in NW Wirral, which although uneconomic, may happen due to public inability to accept the vegetation of the beaches.

* Nutrient Enrichment - The heavy use of the dunes and upper beaches by dog walkers could potentially lead to development of non-dune vegetation due to enrichment from dog faeces. The leaf-litter from planted trees within the dunes causes eutrophication, and has led to a loss of dune vegetation in the vicinity.

* The use of wood chippings to surface paths in Leasowe dunes has led to minor changes in path-side vegetation. The significance of aerial deposition of nitrogen is not known.

* Mowing & Scarification - This takes place mostly on the golf course sites. Its significance for wildlife



is both disadvantageous and advantageous, depending upon the exact regime. Small experimental plots have been mown/strimmed at Meols in an attempt to increase the population of Belted Beauty Moth.

- * Introduced Species - Stabilisation work in the past resulted in the planting of Hybrid Poplar and Elm trees becoming established.

- * Sea Level Rise - The rising beach levels are predicted to keep up with or outpace sea level rise. [Wirral Dee Study, 1990]

How are we helping to conserve coastal sand dunes in the Cheshire region?

- * Wirral Ranger Service manages the Meols and Leasowe dunes within the boundaries of the North Wirral Coastal Park.
- * Strand-lines adjacent to the embryo dunes at West Kirby are not removed by the beach cleaning operation.
- * Footpaths at Leasowe and West Kirby are managed by signing and surfacing to reduce erosion.
- * Blowouts are fenced, either as enclosure plots (Leasowe) or with sand-trap fencing (Meols and West Kirby)
- * Marram planting takes place in enclosure plots at Leasowe.
- * Tree and scrub vegetation is reduced to a minimum.
- * Areas of 'rough' on golf courses are left almost unmanaged although light occasional mowing takes place adjacent to fairways.
- * A database of species is kept on the North Wirral Coastal Park by Wirral Ranger Service.
- * Regular surveys are undertaken on the SSSI and SBI dunes by Cheshire Wildlife Trust.

Objectives, targets and actions

The objectives, targets and actions to help conserve coastal sand dunes in the Cheshire region can be found on the [Biodiversity Action Reporting System \(BARS\)](#) along with full details of our progress so far.

How to find out more about coastal sand dune

[UK BAP Definition](#)



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References and Glossary

HMSO (1995): Biodiversity: The UK Steering Group Report, Volume 2: Action Plans, London.

HMSO (1995): Biodiversity: The UK Steering Group Report, Volume 1: Meeting the Rio Challenge, London.

Wirral Dee Study, 1990, Borough Engineers, Metropolitan Borough of Wirral.

Liverpool Bay Shoreline Management Plan, 1998, Borough Engineers, Metropolitan Borough of Wirral.

North West Regional Planning Guidance S/11/298/APP3 (North West Biodiversity Targets)

