

Dynamic Dunescapes

Rejuvenating sand dunes across England and Wales



Dynamic Dunescapes is a partnership project restoring sand dunes across England and Wales for the benefit of wildlife, people and communities, funded by the National Lottery Heritage Fund and the EU LIFE Programme. Project partners are Natural England, Plantlife, National Trust, Natural Resources Wales, Cornwall Wildlife Trust, Lincolnshire Wildlife Trust and Cumbria Wildlife Trust.



Healthy sand dunes need to be free to move and be dynamic

Where are we working

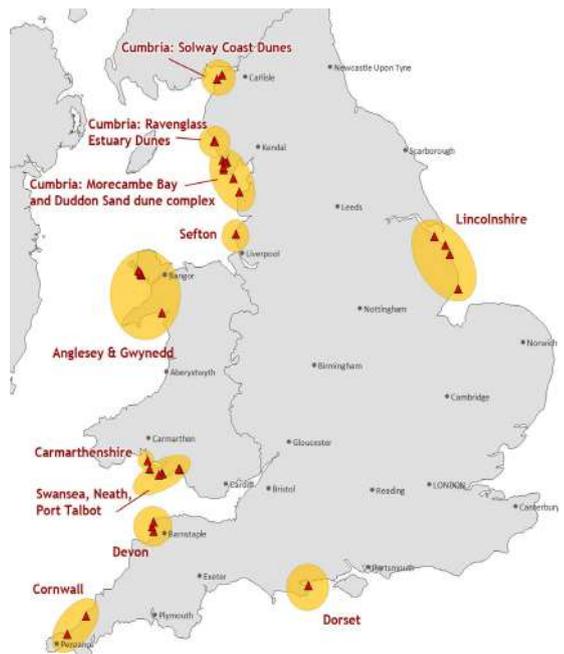
The project will restore nine key dune areas which include 34 individual dune sites, covering up to 7,000 hectares.

Work will take place in Anglesey-Gwynedd, Carmarthenshire, Cornwall, Cumbria, Devon, Dorset, Lincolnshire, the Sefton Coast and Swansea, Neath-Port Talbot.

Why is this work needed?

Coastal dunes, which are internationally important habitats for wildlife, are listed as one of the most threatened environments in Europe.

Dunes are a sanctuary for rare species. Sand dunes also provide ecosystem services, such as offering soft coastal protection, and by serving as recreational spaces key for health and wellbeing.



Extensive loss of bare sand and dynamic processes

Over many decades, conventional dune management has meant that dunes have become overgrown with vegetation and have become stabilised. This has put protected wildlife at risk, as many species need areas of open sand to thrive. One of the ways that the project will bring life back to the dunes is by creating areas of open sand, such as blowouts and notches.

Other species need improvements to the dune slacks. These, often water-filled, dips behind the dunes are important habitats for amphibians and birds. Invasive species will also be removed from the dunes and dune grasslands. Grazing will be reintroduced at some sites which will improve conditions for rare native plants, such as the tiny petalwort, allowing them to flourish.

We will work with locals, national experts and involve schools, local groups, volunteers and visitors to help rejuvenate our dunes.

Project Objectives

- Build an understanding and appreciation of sand dunes as a naturally dynamic habitat requiring conservation interventions.
- Develop the skills of individuals and organisations to better manage dunes, now and in the future.
- To ensure that a greater number and a wider range of people become involved with dunes and learn about, enjoy and value sand dunes.
- Deliver direct evidence-based management and interventions on project sites that will make a demonstrable and sustainable improvement of the conditions and processes needed to support dune habitats and species.
- Establish strong networks so that lessons learnt from the project (both conservation and public engagement) are shared and disseminated, building a lasting legacy for sand dunes.



Habitat Restoration

- Conservation work is planned across 7,000 hectares, including sites containing 'dune heath' and 'fixed dunes' habitat types, which are listed as Annex 1 priority habitats by the EU Habitats Directive, in need of restoration.
- The project aims for 35% of the total sand dune resource achieving 'Favourable Conservation Status'. Currently over 85% is 'Unfavourable'.
- 33 important sand dune species supported, such as natterjack toad, petalwort, sand lizard and fen orchid.
- Dynamic Dunescapes will pilot and share best practice to accelerate learning across the partnership, and with other sand dune land managers in the UK and abroad.

Conservation Techniques

At each site, different and detailed conservation plans have been created, following extensive environmental and geomorphological surveys. Some of the conservation techniques being used across the project include:

- Manual scrub clearance, or introduction of cattle as grazers to keep vegetation low.
- Fences containing grazers and reducing disturbance to toad breeding pools or areas favoured by ground-nesting birds.
- Invasive species removal.
- Creation of blowouts and notches to expose sand and allow natural sand movement through the dune system.

[A Sand Dune Manager's Handbook](#) will be created, using learnings from this project, to support long-term management.

Threats to Sand Dune Habitats

- **Invasive species** that have been introduced or have escaped from gardens can outcompete native species for space and resources.
- **Overstabilisation** of the dunes from vegetation growth reduces dune mobility and sand movement.
- **Increasing scrub and vegetation growth** can make the environment uninhabitable for smaller plants, wildflowers and some rare insects, like the silver-studded blue butterfly.
- **Habitat loss** and fragmentation reduces biodiversity.
- **Dune management messaging** has changed, from stabilising dunes to promoting dynamism, and must be shared proactively.
- **Lack of up-to date skills.** Land manager up-skilling is required to support the new messaging.
- **Lack of engagement.** Communities need to be engaged with new messaging to support long-term sand dune management.



Credit: Natural England/Peter Roworth

Engagement

A myriad of events in the dunes for the local communities are being planned, including volunteer training and conservation sessions, citizen science programmes and a Schools Partnership Programme involving families and communities, as well as events covering curriculum and STEM subjects.

Volunteer opportunities include botanical surveying, assisting in scrub or invasive species removal and fixed-point photography. As this project uses new conservation techniques, research opportunities will be available for students and researchers to work closely with the project staff. The project will also develop a bespoke citizen science app for use by the public, to engage in citizen science at their leisure.

The project will also engage with holidaymakers, land owners, local dog walkers and older people living with dementia, and their carers.



Species

A number of insects live in coastal sand dunes that this project aims to support. These include the striking and rare northern dune tiger beetle, found at Braunton Burrows and the Sefton Coast, which needs bare sand and exposed dune faces to burrow, bury larvae and sunbathe. The silver-studded blue butterfly in Cornwall needs low vegetation, so ponies will be used as grazers to control plant growth across the sand dunes.

Restoration of the dune slack pools in Lincolnshire, Sefton and Cumbria will protect vital breeding habitats for natterjack toads. The bare sand-loving sand lizard is now one of the UK's rarest reptiles, and is a key species for conservation activities in Dorset and on the Sefton Coast.

Native dune flora will also benefit from the project. The rare fen orchid in South Wales and the tiny petalwort, found in Devon, Cornwall and on the Sefton Coast, both need grazing or mowing introduced to keep the dune slack vegetation low, allowing them to flourish.



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Working in partnership with:

