

Case Study

Greening the Cities – construction of chalk banks for downland wildflowers in urban green spaces

The Living Coast UNESCO Biosphere

The Vision

Greening the Cities brought the Downs into the towns through the creation of new areas of chalk downland wildflower planting in Brighton & Hove to provide vital habitat stepping-stones for native pollinators.

Many of our urban green spaces have challenging underground conditions which do not allow for direct planting into the ground, so this project imported chalk and constructed banks to mimic the South Downs in miniature to create these biodiversity hotspots.



New chalk wildflower bank in Vale Park, Portslade. Credit: Brighton & Hove City Council

Key Facts

A previous project created 19 similar wildflower areas across the city.

Greening the Cities did an ecological survey of these existing banks and found an incredible 554 species of insects and 191 species of plants on the banks, showing how beneficial creating areas of wildflowers for pollinators in an urban environment can be.

What we achieved

Greening the Cities was built on the successes and lessons learned from a previous Government-funded Nature Improvement Area project.

On top of the 19 original wildflower areas built around a decade ago, this project has created 7 new wildflower areas in parks and other green spaces across the city of Brighton & Hove. This included three imported chalk banks like the ones discussed in this case study (plus a mini bank inside a school’s grounds).

After construction, the chalk banks were sown with wildflower species to reflect the local downland flora, via planting days with the local community. We used plants grown by Brighton’s Wild Flower Conservation Society who use seeds of local provenance.

The imported chalk banks have created more than 550m² of improved habitat for biodiversity – all sites were previously amenity grass with low value to wildlife.

Constructing a bank

There are some important considerations when planning and designing a chalk wildflower bank.

- Aspect – the bank should be south facing, not too shaded, with space around to allow for ongoing maintenance. Bigger banks are better for biodiversity, with varied aspects and slope gradients to create different micro habitats.
- Underground conditions – check for utilities (desk-based and scanning with a CAT and Genny). If there is underlying chalk geology and shallow soil, removal of topsoil to expose the chalk bedrock would be preferable to an imported bank.
- Landowner permission and an agreed plan for ongoing maintenance must be in place before work starts.
- Ensure the imported chalk is clean and doesn't contain too much topsoil. Aim for roughly 1 tonne of chalk per m² of your bank's footprint. Ensure the chalk is well compacted, our contractor used a sheepsfoot roller.
- "Toe in" the bank – excavate turf and topsoil to create a trench approx. 1m wide and 0.2m deep around the edge to reduce grass encroachment.

“Refining a successful technique for creating chalk banks in the city enables us to confidently share the methodology, supporting future delivery of biodiversity enhancements in the region.”

Sarah Dobson, Programme Manager,
The Living Coast UNESCO Biosphere



Further information

<https://thelivingcoast.org.uk/project/changing-chalk-greening-the-cities>

Planting and maintenance

Wildflower planting should reflect local downland flora, at a planting density of 6-8 plants per m². Don't fill the gaps with extra plants as bare patches will encourage unusual flora and provide basking space for pollinators to warm up in the sun.

If you are hoping to attract certain butterfly species, it's worth ensuring you have food plants for both the caterpillar and adult life stages.

Maintenance – mow the surrounding area twice a year, allowing it to flower/grow long during summer. An annual cut and clear of the bank itself will be needed once the flora is established and removal of unwanted species (e.g. nettles, dock, brambles, grass). Consider sowing the surrounding area with Yellow Rattle to reduce grass dominance.

Interpretation signage for the public is essential to ensure people understand the purpose of the new bank and to let them know what to expect while it establishes over the first couple of years.

Consider installing a small fence around your bank if it's located somewhere with high footfall. Banks are likely to attract interest and could encourage children to climb or bike over it which leads to damage and a reduction in habitat quality.

The Changing Chalk Partnership

Led by the National Trust, Changing Chalk was a four-year partnership project from 2022 to 2026 working to reverse the ecological decline of chalk grassland in the eastern South Downs, bring histories to life, and connect local communities to the internationally significant landscape on their doorstep.

www.nationaltrust.org.uk/changing-chalk-partnership



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