

Dynamic Dunescapes

App No.: P2022/1091.

Proposal: Proposed erection of metal sculpture archway along access path to Baglan Burrows.

Location: Baglan Burrows Footpath Access Track Parallel to Right of Way 35/WCP/7 Baglan Bay

NRW Response to Invalid Letter dated 4th January 2023.

Julie Creer (Lead Specialist Advisor Coastal Habitats).

11th January 2023

1. Introduction.

Baglan Burrows has been developed progressively from the 1960s, when the sand dunes were levelled and slag from nearby steel and ironworks was imported. The maximum extent and operation of industrial works was in the late 1970s, industrial activity wound down eventually leading to demolition in the 1980s and 1990s and the last industrial facility was removed in 2005. The dunes here provide a significant flood defence function to the industrial development behind (Pye *et al.*, 2007). The sand dunes are accreting here due to the breakwater construction and stabilisation of the River Neath by the western and eastern training walls. The dunes have a multiple ridge system with a spit dune geomorphological type forming. The site has the Wales Coast Path running along the eastern side of the dune system, cutting across the saltmarsh to the rear. The condition of the sand dune habitats has been significantly impacted by the damage caused by off road motorbikes, although some habitat creation has occurred as a consequence.

A report commissioned by CCW (Countryside Council for Wales) in 1996 (Posford Duvivier, 1996) states that “the site appears to have been used extensively for recreation and there is large scale erosion”. Despite the site accreting currently, the internal erosion due to inappropriate recreation is still occurring and has increased significantly, threatening the integrity of the sand dune vegetation communities.

The Dynamic Dunescapes is a new project to restore sand dunes across England and Wales for the benefit of people, communities and wildlife. The partnership of The National Trust, Natural Resources Wales, Natural England, Plantlife, The Wildlife Trusts and the Heritage Lottery Fund will work on seven dune cluster sites in England and two in Wales, with the objective to:

- Build an understanding and appreciation of sand dunes as a naturally dynamic habitat requiring conservation interventions to support natural processes that benefit communities.
- Ensure more people and a wider range of people get involved with sand dunes.
- Develop the skills of individuals and organisations so they better understand how dunes are changing and respond to conservation intervention
- Deliver the management at a site level to achieve the objectives, supported by monitoring and data collection.
- Ensure lessons learnt from the project (both conservation and people engagement) are shared and disseminated.
- Develop skills to manage dunes better, both now and in the future

As part of the project Natural Resources Wales are planning to install a metal archway sculpture at Baglan Burrows.

The primary aim of this sculptural installation will be to inform and inspire visitors to this sand dune site about the very special place for nature conservation that they are entering, and to enhance the natural environment while at the same time acknowledging the industrial

heritage of the Swansea and Neath Port Talbot coastline through the use of metal as a medium.

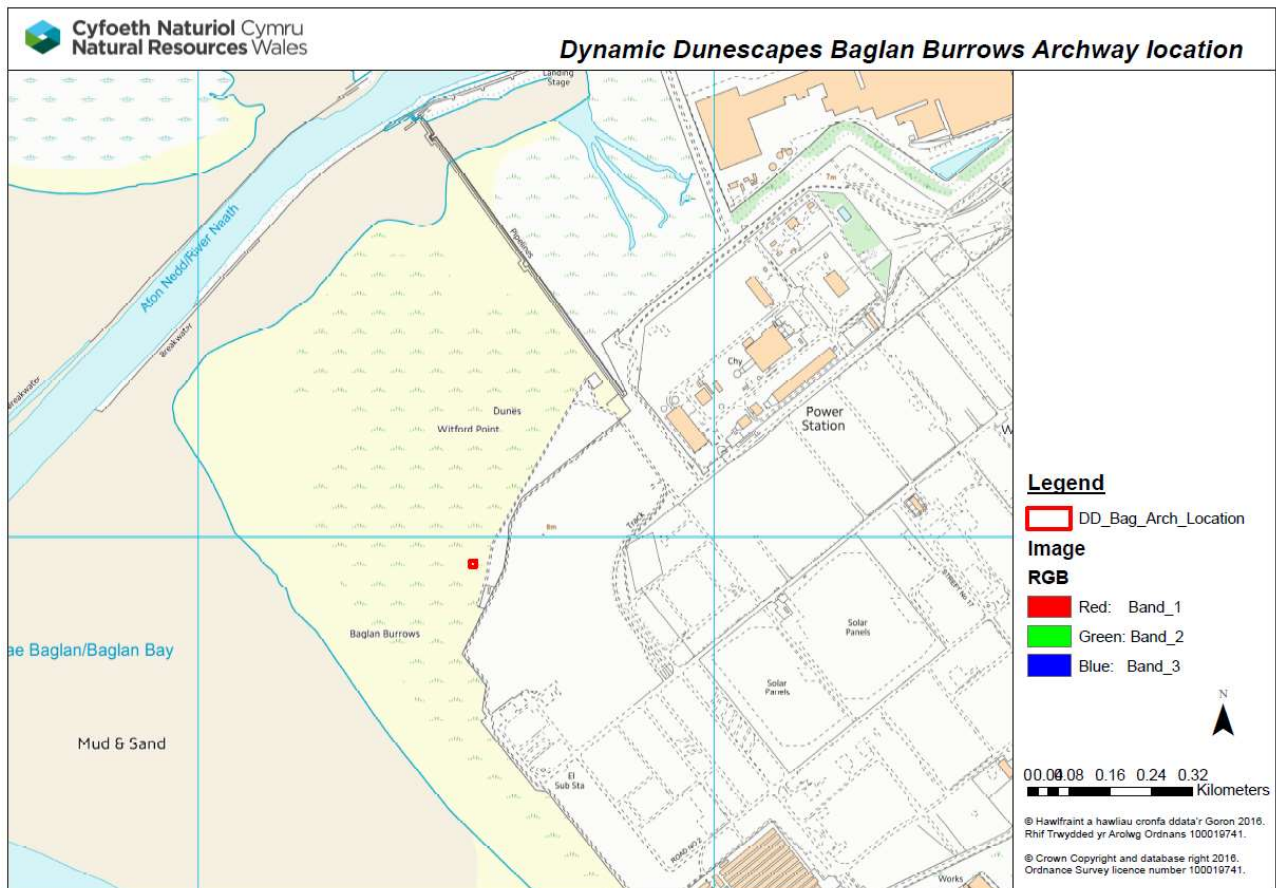
This sculpture will be metal in construction in order to deter vandalism and also to reflect the industrial heritage of the Swansea and Neath Port Talbot area. After consultation with the local community, an archway design was chosen for the pedestrian entrance to Baglan Burrows. The dimensions for this archway will be 2.5m high by 2.0m wide and 1.5m deep. The community also indicated they would like to see the archway incorporating the landscape view and local species found on the sand dunes, specifically plants, flowers, bees, butterflies and birds represented in a fairly literal format, although an element stylisation will be expressed within the design. The archway sculpture will be made from mild steel which will be hot-dipped galvanized. It will have a silver finish and will be robust. Galvanizing will protect the steel against corrosion and has been shown to last for at least 50 years. The nuts and bolts used will be A4 stainless steel (marine grade).

The main structure for the archway references marram grass to emphasise its importance for the dunescape. The infill of the arches consists of the dune landscape, butterflies, bees, plants, flowers and birds to reflect the results from the consultation with the local community. The archway will incorporate the Welsh and English Names for the site on the entrance side of the archway.

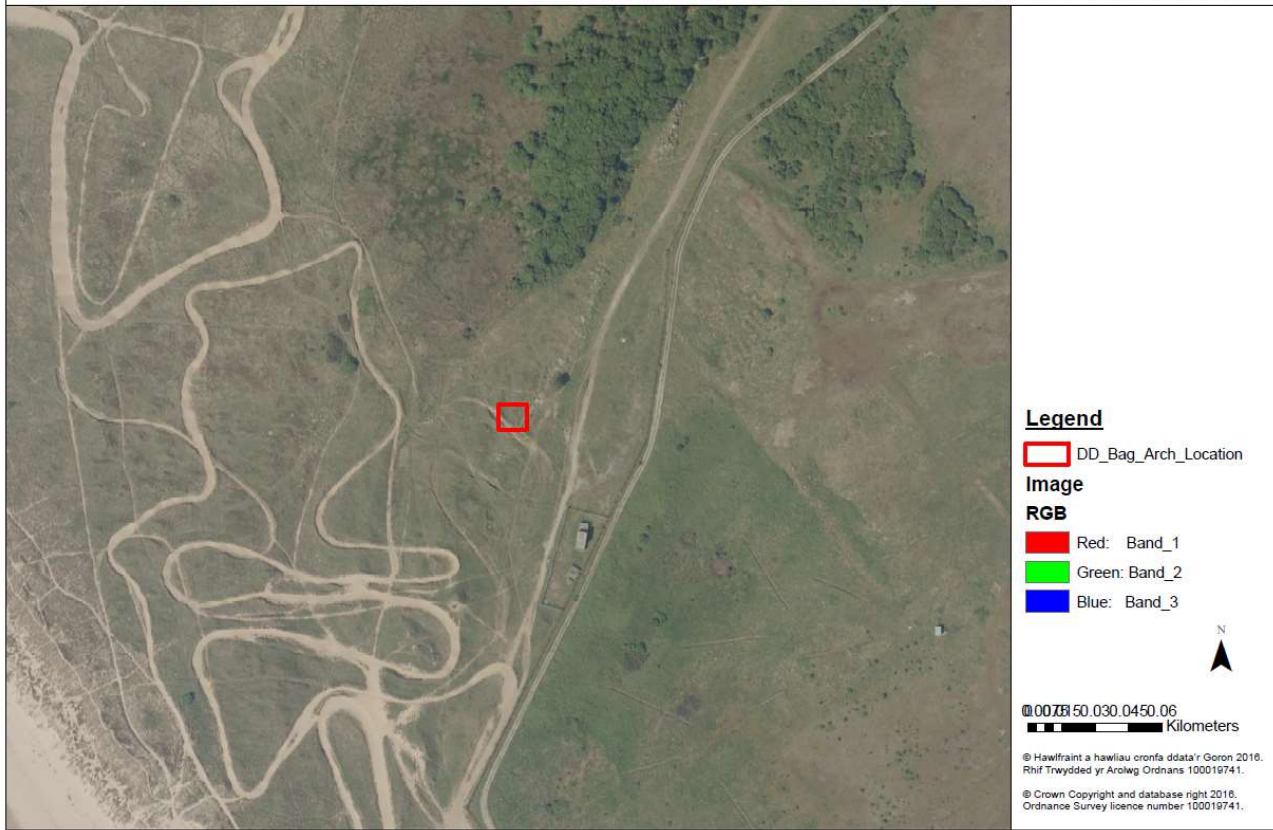
The archway will be installed in an area of short, trampled dune grassland within minimal impact on the sand dune habitats at the location

2. Location

The proposed archway is being installed near the Wales Coast Path, in short grass well used by the public, especially dog walkers, and over 50m from the nearest area of significant scrub (a non-native conifer is within 10m of the location).



Block Plan 1. Dynamic Dunescapes Baglan Burrows Archway Sculpture location.



Block Plan 1. Dynamic Dunescapes Baglan Burrows Archway Sculpture location zoomed in location with aerial imagery for geolocation purposes.

3. Elevations

Front and side elevation drawings (Figures 1 & 2) indicate the height and width of the archway. Using Figures 1 & 2 together with Pictures 1-4, (the ranging poles are spaced 2m apart) give an indication of the height and width of the front elevation in relation to the existing environment.

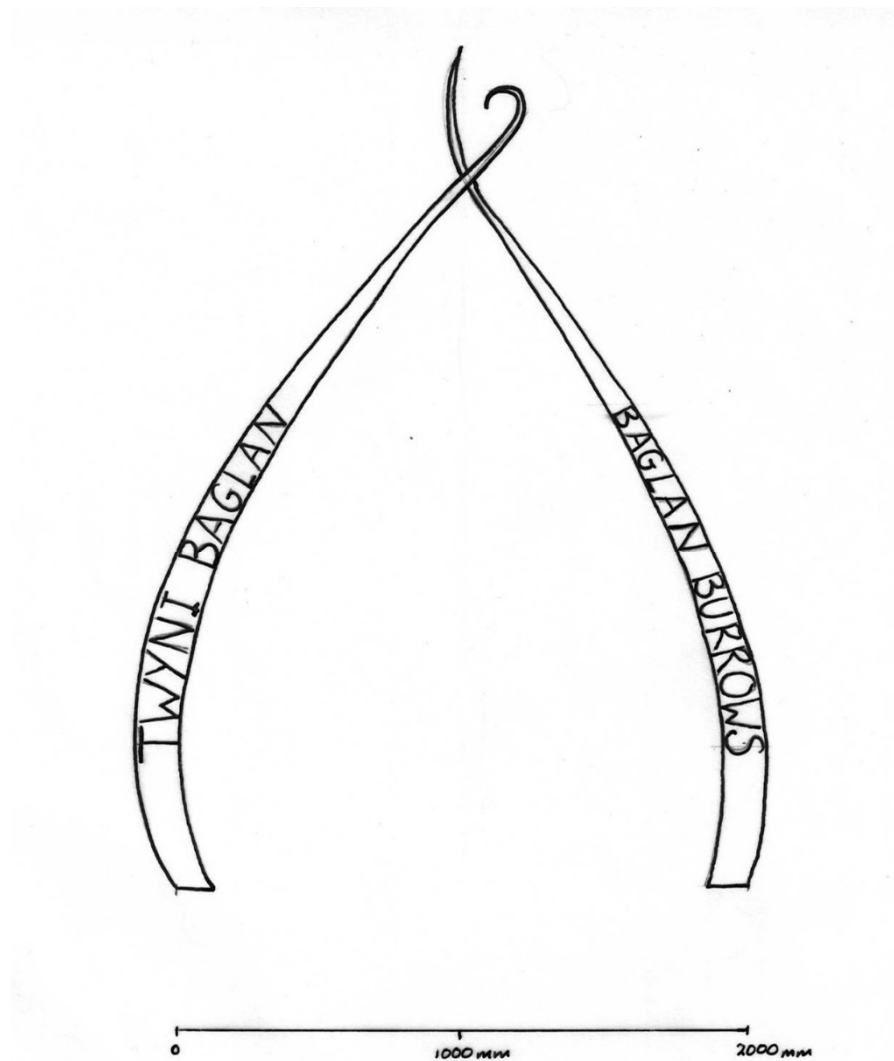


Figure 1. Dynamic Dunescapes Baglan Burrows Archway Sculpture front elevation (Scale 1:20).

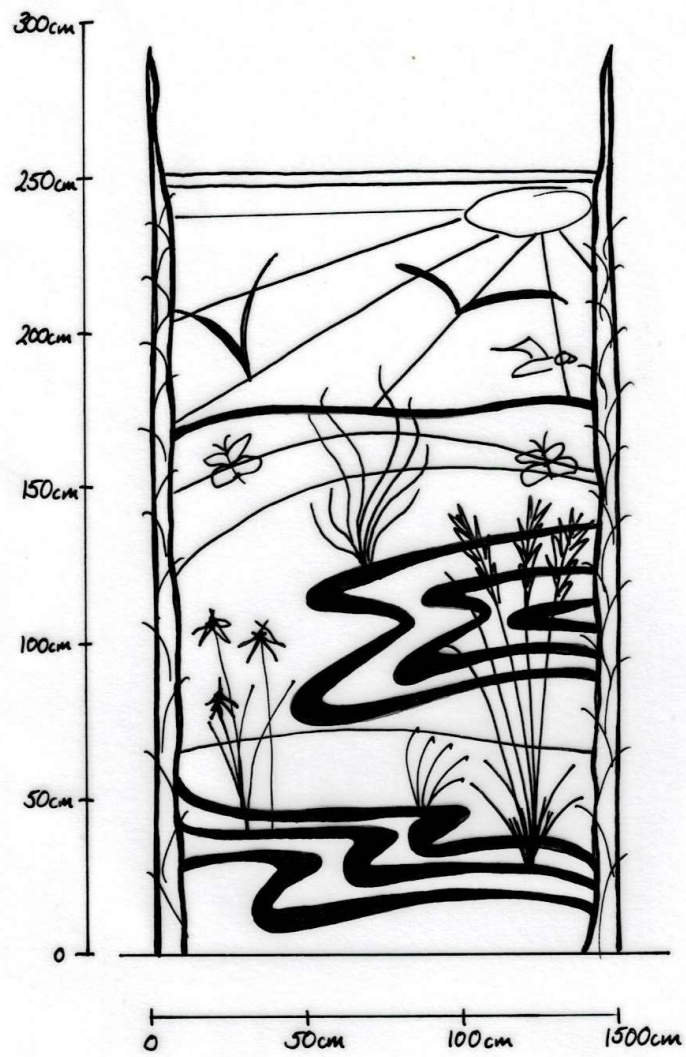


Figure 2. Dynamic Dunescapes Baglan Burrows Archway Sculpture side elevation (Scale 1:20).

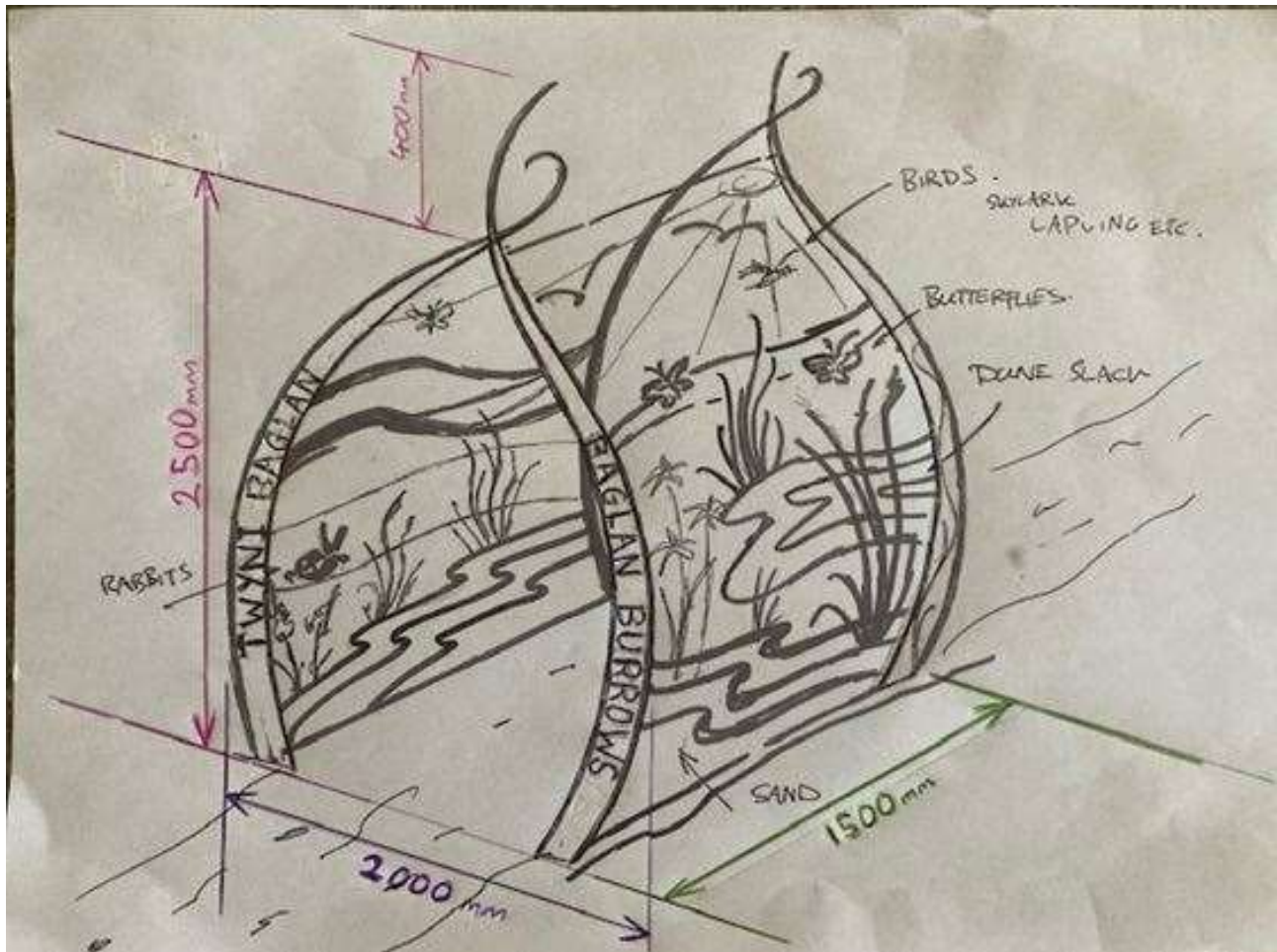


Figure 3. Dynamic Dunescapes Baglan Burrows Archway Sculpture illustrative picture.



Picture 1. Location for the DD Baglan Burrows Archway Sculpture. Ranging poles are 2m in length.



Picture 2. Location for the DD Baglan Burrows Archway Sculpture. Ranging poles are 2m in length.



Picture 3. Location for the DD Baglan Burrows Archway Sculpture. Ranging poles are 2m in length.



Picture 4. Location for the DD Baglan Burrows Archway Sculpture. Ranging poles are 2m in length.

4. Flood Risk Assessment.

Letter from NRW stating than an FCA is not required – email from Barry Cox (Development & Flood Risk Advisor) dated 9th January below.

From: Cox, Barry <Barry.Cox@cyfoethnaturiolcymru.gov.uk>
Sent: 09 January 2023 16:27
To: Broadbridge, Nicola <Nicola.Broadbridge@cyfoethnaturiolcymru.gov.uk>
Subject: RE: Details of Archway Sculpture, Baglan Burrows

Afternoon Nicola

As discussed I see no issue from a flood risk perspective given the scale and nature of your proposal, and therefore if consulted I would not request a Flood Consequence Assessment.

Kind Regards

Barry

Development & Flood Risk
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Gwefan / Website: www.cyfoethnaturiolcymru.gov.uk / www.naturalresourceswales.gov.uk

Ein diben yw sicrhau bod adnoddau naturiol Cymru yn cael eu cynnal, eu gwella a'u defnyddio yn gynaliadwy, yn awr ac yn y dyfodol.

Our purpose is to ensure that the natural resources of Wales are sustainably maintained, enhanced and used, now and in the future.

5. Biodiversity.

5.1 Habitats.

The habitat at the archway sculpture location is a mix of short dune grassland and relict aggregate substrate, a recent (2020 & 2021) National Vegetation Classification (NVC) Phase II Survey (Heathcote *et al.*, 2022) (funded by Dynamic Dunescape) has been undertaken at the site. The habitat in the general area has been described as..... “*The most landward parts of the site have been modified by past use and support a dune grassland on a clinker substrate that is closest to SD8c Festuca rubra-Galium verum fixed dune grassland, Tortula ruralis ssp. ruraliformis sub-community, but with a very open sward where Hypnum cupressiforme var. lacunosum has a high cover with constant and abundant Holcus lanatus, Galium verum and Ononis repens.*” . Pictures 1-4 show the extent of the “clinker substrate” within the archway sculpture location. The footprint of the archway sculpture is less than 3m² and consequently any impact on the dune grassland at this location is considered to be negligible considering the extent of the clinker substrate at the location.

5.2 Birds.

Installation of the archway sculpture will be taking place outside the bird nesting season, but if timescales slip and installation falls within the bird breeding season, nests will be searched for in the installation location before construction would be allowed to proceed. Furthermore, it is highly unlikely that there would be any nests in the vicinity due to the regular use by the public and unsuitability of the habitat (see Pictures 1-4).

5.3 Bats.

No flight lines or foraging areas will be impacted by the installation of the archway sculpture (the nearest area of significant scrub is over 50m away). No building is associated with the archway sculpture. Impacts to bats are considered to be negligible.

5.4 European protected Species (EPS).

An extensive search on the NRW EPS GIS layer at the archway sculpture location revealed no records for any EPS species.

5.5 Invasive Non-Native Species (INNS).

A non-native conifer is within 10m of the location for the archway sculpture, if any INNS are encountered as part of the installation of the archway sculpture then NRW will be notified of the location and the extent and an action plan for removal will be drawn up and agreed between the landowner and NRW.

5.6. Biodiversity Enhancements.

The Dynamic Dunescapes project at Baglan has already delivered significant habitat enhancements – including, invasive species and native scrub control. Community engagement has been integral to the project and the purpose of the archway sculpture at Baglan is to encourage public enjoyment and engagement with nature at this sand dune location.

6. References.

- Heathcote, S, J., Finch, R., Carter, R, N., Ruffino, L., Pickard, M., Sutton, M., Lamacraft, D. (2022). Dynamic Dunescapes National Vegetation Classification Survey. NRW Evidence Report Series. Report No. 659, 224pp, Natural Resources Wales, Bangor.
- Posford Duvivier Environment (1996). The role of dune management in coastal defence: an environmental, technical and economic evaluation. CCW Science Report 805. Countryside Council for Wales, Bangor.
- Pye, K., Saye, S., and Blott, S. (2007). Sand dune processes and management for flood and coastal defence. Part 3: The geomorphological and management status of coastal dunes in England and Wales. R&D Technical Report FD1392/TR. Joint Defra/EA Flood and Coastal Risk Management R&D Programme.