

Moorside Nuclear Power Station – Site Appraisal



Fig 1: Approximate Location of Moorsdie Nuclear Power Station Site.

Site Context

The Moorside nuclear power station is proposed for a site located near Sellafield, Cumbria, England, CA20 1DS (Figure 1).

The site is made up of a number of irregular field parcels. From a desktop review, the site appears to have areas of interspersed hedgerow boundaries, particularly to the north and east. The south-eastern portion of the site is bounded by an existing power station, Sellafield. The western portion is bounded by undeveloped fields and further west is the River Ehen. The southern portion of the site is bounded by the coastline and a section of the existing Sellafield power station. The wider setting of the site is an industrial landscape.

The nearest settlement to the site is the village of Calder Bridge, located approximately 1km to the east. Other nearby settlements include Beckermest (circa 0.5km to the north) and Braystones (circa 0.8km to the west).

The A595 is circa 1.5km east of the centre of the site.

There is an existing power station adjacent to the proposed Moorside development site. The development.

Site Constraints

Flood Risk

The site is predominantly located in Flood Zone 1, indicating a low probability of flooding from rivers and the sea. The southern and western boundaries are located in Flood Zone 3 and are surrounded this indicating these areas have a high probability of flooding.

A main river, the River Ehen runs to the east of the site and is located in Flood Zone 3, with a high probability of flooding. There is an existing flood defence located along the river circa 1km to the West of the site.

Sea Level Rise

From desktop review, the coastline in which the Moorside power station is proposed to be located alongside, is at threat of floods from 2030 onwards. Figure 2, an extract from the Climate Central Sea Level Rise and Coastal Flood Map shows a prediction of the coastline, to the west of the site, as being below annual flood level by 2030.

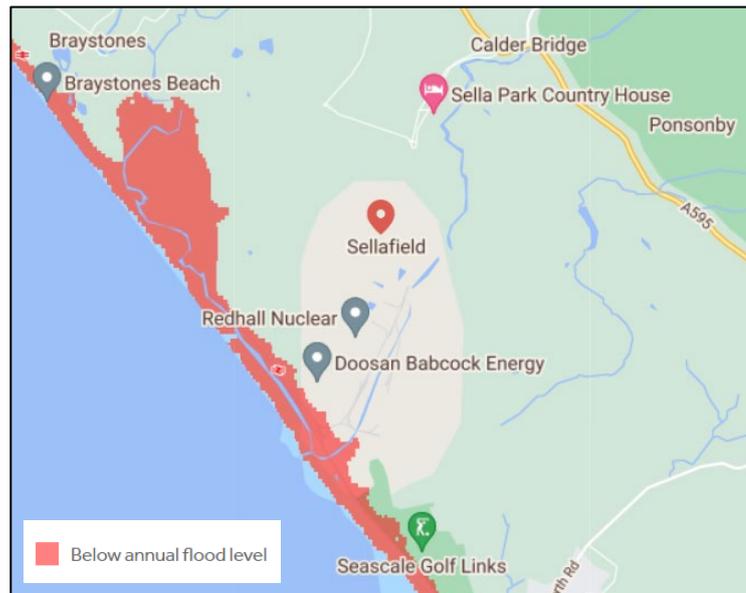


Fig 2: Moorside projected Annual Flood Level Map [Climate Central | Land projected to be below annual flood level in 2030](#)

Heritage

In regard to heritage assets, there are listed buildings, scheduled monuments and a world heritage site located in proximity to the site. There are 5 designated heritage assets within a 500m buffer around the site:

- Church of St Bridget (Grade II*) approximately 0.4km to the northwest.
- Two high cross shafts in St Bridget's Churchyard (Scheduled Monument) approximately 0.4km to the northwest.
- North Lodge and Gate Piers to Pelham House (Grade II) approximately 1km east.
- Pelham House (Grade II*) approximately 0.5km to the east.
- Sella Park (Grade II) approximately 0.3km to the east.

'The English Lake District' World Heritage Site is located, in close proximity, to the east of the site.

Public Rights of Way (PRoWs)

The site features a public right of way in the form of a footpath, Footpath: 424 017, located within the southern portion of the site boundary.

There are a number of footpaths outside of the boundary, those closest to the site include:

- Footpath: 414 007 – north of the site.

- Footpath: 424 016 – approx. 1km north of the site.
- Footpath: 424 025 – located to the west of the site, outside the boundary.

There are further footpaths and bridleways located to the east of the existing Sellafield power station.

Landscape

The site is located in National Character Area 07: West Cumbria Coastal Plain, which consists of an undulating coastal landscape with the energy industry being particularly apparent in the landscape, with nuclear and biomass power stations being highly visible from many areas.

The site is made up of several irregular fields, with few interspersed hedgerow boundaries to the north and east. There are a limited number of trees in the immediate surrounding area, a common feature of the West Cumbria Coastal Plain NCA. Therefore, it is anticipated that the development would be visible from further afield.

As noted, there is an existing power station adjacent to the Moorside development site. It can be anticipated that the overall impact of the development would not be significant.

Ecology

A review of DEFRA Magic Map found the following nearby designations within 2km of the site:

- Low Church Moss (SSSI) approx. 0.2km northwest of the site.
- The Lake District National Park approx. 09km east of the site.

Conclusion – Key Points:

- There is evidence that power stations can be assimilated into the local landscape, as is evidenced by Sellafield power station adjacent to the proposed Moorside site.
- There are PRow footpaths within and in proximity to the site.
- There are 5 designated heritage assets within a 500m buffer around the site.
- The site is predominantly located in Flood Zone 1
- The southern and western boundaries are located in Flood Zone 3 and are surrounded this indicating these areas have a high probability of flooding.
- The coastline in which the Moorside power station is proposed to be located alongside, is at threat of floods from 2030 onwards.