

Bradwell B – Site Appraisal



Fig 1: Approximate Location of Bradwell B Nuclear Power Station Site.

Site Context

Bradwell B is a proposed new nuclear power station, located in Bradwell-on-Sea, Essex (Figure 1).

The site consists of a number of irregular fields. From a desktop review, there appears to be limited hedgerow boundaries and tree cover across the site. There are a small number of residential properties across the main development site alongside a farmstead, East Hall Farm.

The existing decommissioned Bradwell power station is to the west of the proposed site.

The wider area and the immediate surrounding of the proposed site, is predominantly rural, comprising undeveloped agricultural fields. The nearest settlement is the small hamlet of Bradwell Waterside, 0.3km west of the site. The village of Bradwell-on-Sea is located 0.5km southwest.

The surrounding seascape is situated within the Essex and South Suffolk Estuaries and Coastal Waters Marine Character Area.

Site Constraints

Flood Risk

The site is predominantly within Flood Zone 3: Areas Benefitting from Flood Defences. An existing flood embankment wraps around the northern and eastern boundaries of the site.

A watercourse, Weymark's River, runs southwest through the development site, and at current is subject to a low risk of flooding. This meaning the area currently has a chance of flooding between 0.1% and 1%. Due to the site being more than 1ha, the proposal must be supported by a Flood Risk Assessment.

Sea Level Rise

A desktop review of the site shows the coastline to the east of the site is at threat of floods from 2030 onwards. Figure 2, taken from the Climate Central Sea Level Rise and Coastal Flood Map (Figure 2) shows the site and surrounding area, to the east, is projected to be below annual flood level by 2030.

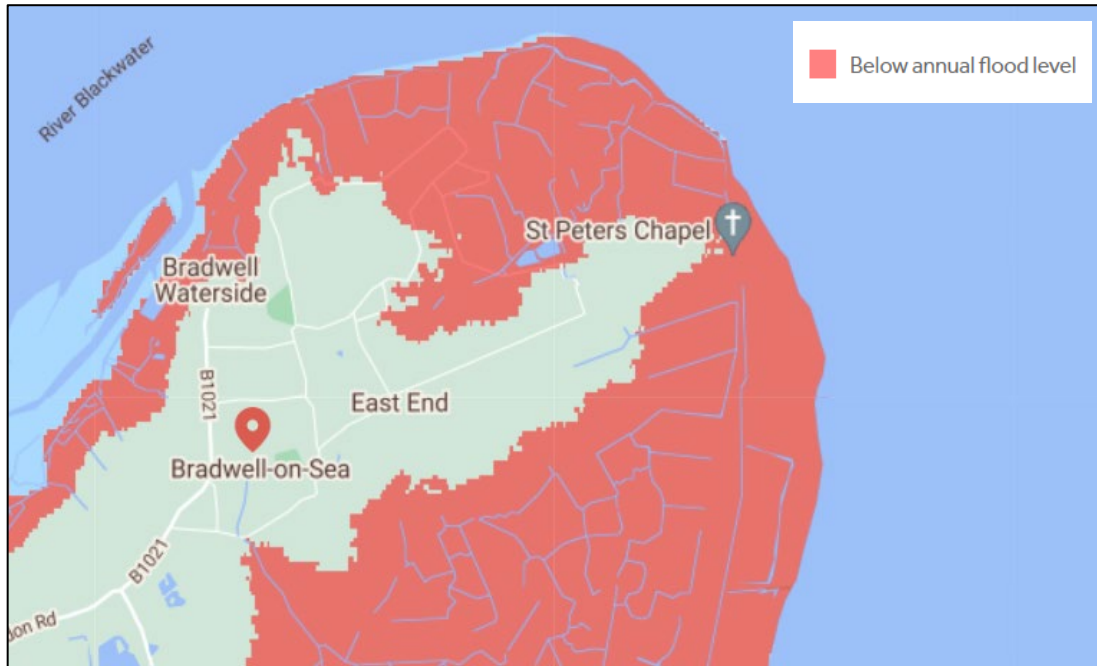


Fig 2: Bradwell-on-Sea - Projected Annual Flood Level Map [Climate Central | Land projected to be below annual flood level in 2030](#)

Heritage

In respect of heritage assets, four Grade II listed buildings are within the site:

- 1) Barn approx. 15m west of Easthall Farmhouse.
- 2) Byres and Stable Ranges approx. 25m south west of Easthall Farmhouse.
- 3) Easthall Farmhouse.
- 4) Byres and Stable Ranges approx. 40m south west of Easthall Farmhouse.

Public Rights of Way (PRoWs)

There is a public rights of way (PRoW) network within and surrounding the site:

- The 241 15 Footpath wraps around the site boundary and the top of the existing flood embankment, forming part of the Saltmarsh Coast Trail.

Users of the PRoW are sensitive receptors and would need careful consideration within a Landscape Visual Impact Assessment.

Landscape

The site is located in National Character Area 81: Greater Thames Estuary (NE471), which consists of predominantly flat, low-lying coastal landscapes and extensive open spaces.

The site appears to contain large open arable fields, with a general absence of tree cover. Therefore, there may be issues with the visibility of the site from surrounding viewpoint locations.

It is difficult to determine from a desk top review how visible the site is within the wider landscape; however, landscape features suggest the site would be highly visible.

However, there is evidence that the landscape has demonstrated the fact that power stations can be successfully assimilated into the landscape.

Ecology

A desktop study has identified the site as being in proximity to several Sites of Special Scientific Interests, Special Areas of Conservation and Special Protection Areas. A review of DEFRA Magic Maps found the following nearby designations:

- Dengie (SSSI).
- Sandbeach Meadows (SSSI).
- Blackwater Estuary (SSSI).
- Essex Estuaries (SAC).
- Borrow Dyke (SSSI, SAC and SPA).
- Wild Bird General Licence Protected Sites Condition Zone.

Conclusion – Key Points:

- There is evidence that nuclear power stations can be assimilated into the local landscape and surrounding area, as is evidenced by the existing decommissioned Bradwell Power Station.
- The majority of the site is located within Flood Zone 3: Areas Benefitting from Flood Defences, indicating a high risk of flooding.
- A number of Grade II listed buildings within the site, with limited bounding vegetation. Therefore, there may be a significant impact on the assets.
- Land surrounding the site is projected to be below annual flood level from 2030 onwards.
- An LVIA would be required to fully assess the impact of development on the local landscape.