

2 STUDY AREA

2.1 SITE DESCRIPTION

The site is located along the stretch of coastline immediately north of Wicklow town, on the east coast of Ireland and extends some 9 kilometres north to Five Mile Point, just south of Newcastle.

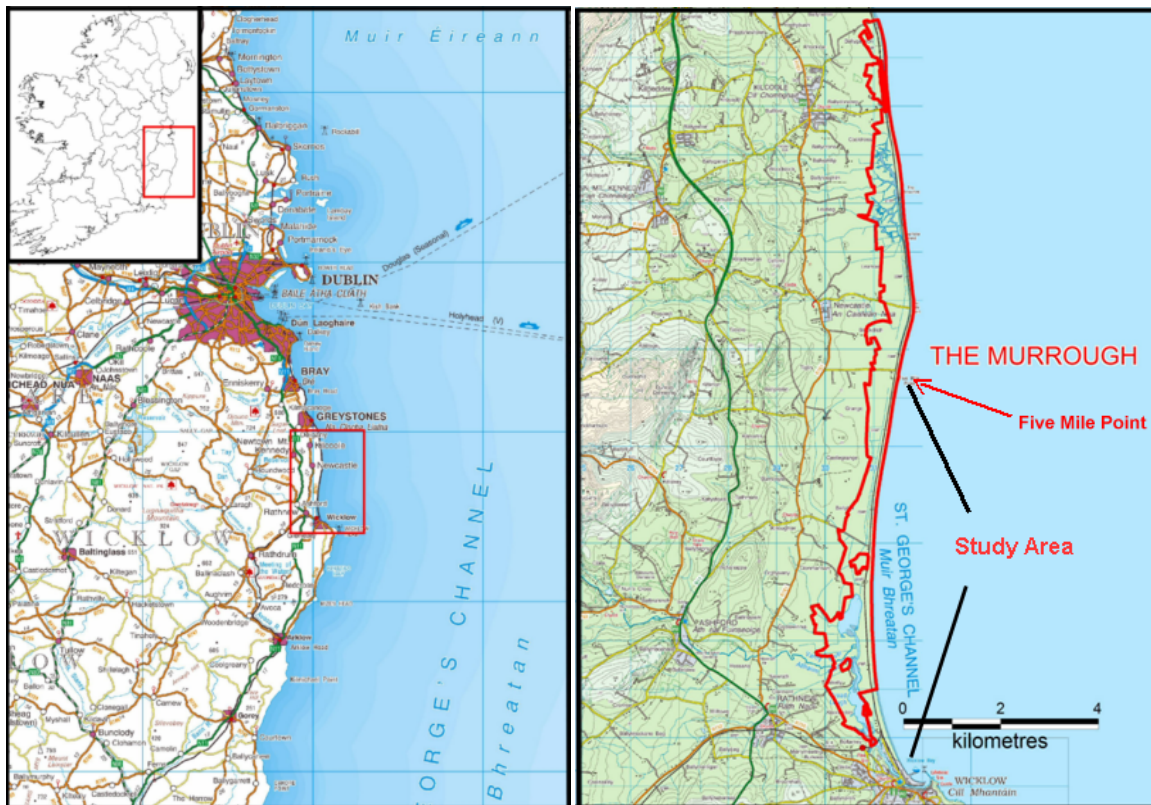


Figure 2.1 Site Location

The beach mainly comprises shingle, which forms a ridge along the length of the site. This shingle ridge supports drift line vegetation, low sand hills, dry grassland and coastal heath. The Dublin-Wexford railway line also runs along the ridge.

The southern 3km of the Murrough is formed around a lagoon (known as Broad Lough) at the mouth of the Vartry River. The southern part of this lagoon narrows into the Leitrim River, which continues for a short distance to the sea at Wicklow Harbour. Broad Lough is a partly tidal salt marsh, with intertidal flats exposed at low tide.

At the northern end of the Murrrough, to the north of the study area, there is another significant saltmarsh area, known as Kilcoole Marshes. Though the area has been greatly affected by drainage in the late 1980s and early 1990s, the Murrrough is of importance as it is the largest coastal wetland complex on the east coast of Ireland.

The site supports a number of habitats listed on Annex I of the EU Habitats Directive, in particular *Saltmarsh*. The site is also of international importance for bird life, with significant numbers of wintering birds such as Brent Geese. It also hosts many Annex I species on the EU Birds Directive such as the Red-throated Diver, Little Egret, Bewick's Swan, Whooper Swan, Greenland White-fronted Goose, Golden Plover, Kingfisher, Sandwich Tern and Little Tern.

2.2 HYDROGRAPHIC AND BEACH SURVEYS

Hydrographic surveys of the northern section of the study area had been previously undertaken by Irish Rail. These surveys, completed in 2000, extended out from the beach for a distance of about 1.2 kilometres and were made available to Wicklow County Council for this study. Surveys of the nearshore and beach area for the 3.5 kilometre section of coast to the north of Wicklow harbour were undertaken in late September 2006 by Hydrographic Surveys Ltd. The extent of the combined surveys of the study area is shown in Figure 2.3 below.

Sediment samples were taken along the beach during the survey. Rock armour is present on the upper beach for a distance of about 400m north of Wicklow harbour. North of the armoured section, the upper beach consist of a shingle bank with sand and gravel on the middle and lower beach as can be seen in Figure 2.2.



Figure 2.2 Shingle upper beach with sand and gravel on the middle/lower beach

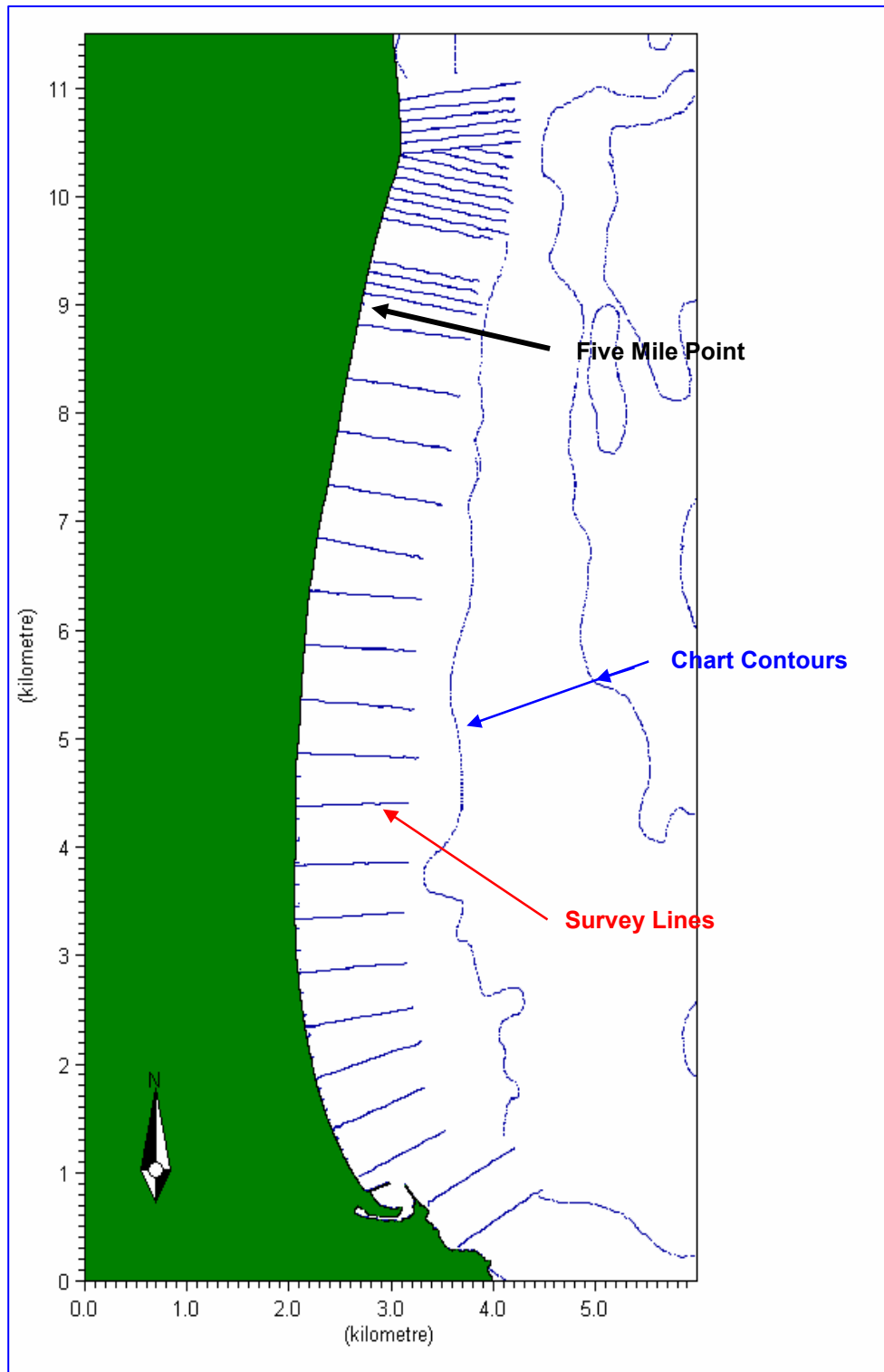


Figure 2.3 Extent of beach and nearshore hydrographic survey lines

