

30 FISHERIES RESOURCE AND COMMERCIAL FISHING ACTIVITY

30.1 EXISTING ENVIRONMENT

1. In order to assess the potential for disposal to impact on commercial fishing activity, the intensity of commercial fishing was assessed. Details of commercial fishing activity within the vicinity of the proposed disposal ground was obtained from DEFRA. DEFRA (formerly MAFF) collect data on fishing activity from fisheries protection vessels (FPV) and fisheries protection aircraft (FPA). The latter method covers a wider area than the former and is likely to give a more representative indication of fishing activity. Nevertheless, the data collected via the two methods can be combined to assessing fishing activity as double-counting of vessels is a very low percentage of the overall total observed (DEFRA, *pers. comm.*).

2. The proposed disposal site is situated within ICES division IVc, statistical rectangle 32F1, sub-square 2. The fisheries surveillance data indicates the location of fishing vessels, its nationality, the vessels type and activity. For this assessment, the surveillance data for the period 1999 to July 2001 has been used.

3. The surveillance data for the period January 1999 to July 2001 has been imported into a GIS (see Figure 30.1.1). Individual points represent a single vessel, although it should be remembered that not all of the vessels shown on each figure will have been present at a particular time as the data for 2.5 years of fishing activity have been aggregated. The location of the proposed disposal site is also indicated on Figure 30.1.1. The data shows that 6 fishing vessels were observed within a radius of 2km of the proposed disposal site over the period January 1999 to July 2001.

4. The proposed disposal site is within the 12 mile limit, where France and Belgium have historic fishing rights. These countries were consulted in May 2002 to determine whether they fished in the vicinity of the Inner Gabbard (East); no response was obtained from either French or Belgian fishery authorities.

5. Through consultation with the Harwich Fishermen's Association it appears that the area is of little interest to UK fishermen and, therefore, that the fisheries resource of the area is limited; indeed, the Association suggested that the Inner Gabbard (East) was their preferred location for the receipt the dredged material.

30.2 POTENTIAL IMPACTS DURING THE DISPOSAL PHASE

30.2.1 Interference with fishing activity due to the disposal of dredged material

1. There would be an increase in shipping traffic in the vicinity of the Inner Gabbard (East) due to the disposal of capital dredged material. That is, it is expected that there would be periodic increases in shipping traffic over a period of approximately 3 months (i.e. for the duration of the dredging of the stiff clay component). An estimated 670 vessel movements would be required to dispose of all of the material expected to arise from this phase of the dredging.

2. There is likely to be some interference with fishing activity due to the number of vessels required for the disposal operations. Although the fisheries surveillance data suggests that the Inner Gabbard (East) area is not heavily fished, the number of vessels observed fishing would be lower than the actual level of fishing activity. However, consultation with the Harwich Fishermen's Association suggests that the area is of little interest for fishing activity.

3. The effect of the disposal would be to exclude any fishing activity in the vicinity of disposal vessels when they are operating and fishing vessels would have to relocate. However, given the temporary nature of the impact, the short duration of the disposal operation and the limited activity that occurs in the vicinity of the site, the impact is considered to be of **negligible significance**.

Mitigation and residual impact

4. A Notice to Mariners would be issued to inform other users of the coastal zone of the operations. The residual impact remains of **negligible significance**.

30.2.2 Migration of clay balls outside of the disposal area with potential for effect on fishing gear

1. The dredged clay in the hopper would take the form of lumps and balls of clay of varying sizes which glue together under the weight of the overlying material. As the hopper doors are opened the clay would discharge into the water column as a larger aggregation, but the pressure of the water on this bulk mass would cause it to disaggregate back into clay lumps/balls before it impacts on the bed, when the bulk of the material would reform into a cohesive mound.

2. Loose clay debris would occur on the periphery of each dumped cargo and some of this could be mobile under the action of hydrodynamic and gravitational forces. This could have a **minor adverse impact** on commercial fishing activity in the areas around the placement zone.

Mitigation and residual impact

3. The first capital placements at the site would form a bund to the north and south preventing the downslope movement of clay placed subsequently, while to the east and west the bed slope would reduce advection of material in these directions. Following initial disposals, the positions of subsequent disposals would be adjusted to ensure that loose material on the periphery of each disposal would be trapped by the subsequent disposal, thus reducing the available quantity of loose material.

4. Smaller clay balls from the first few placements before the walls are completed would be mobile if they are under 30mm in size. The area of the seabed affected by clay placement could thus extend beyond the initial placement zone. This could have a **negligible to minor adverse impact** on commercial fishing activity in the areas around the placement zone.

Figure 30.1.1

30.3 POTENTIAL IMPACTS DURING THE POST-DISPOSAL PHASE

30.3.1 Reduction in potential fishing grounds

1. The disposal of clay at the Inner Gabbard (East) would affect the ability of vessels to fish the area, particularly using the beam trawl method. This method of fishing 'trawls' along the seabed and, therefore, if the site was trawled the mounds of clay would damage gear and make the area impossible to fish, with the result that the area directly affected by the disposal will effectively be closed to fishing activity.

2. The level of fishing in this area appears to be relatively low based on the surveillance data. Furthermore, fishermen do not appear to fish the area and the effect is considered to be of **negligible significance**.

Mitigation and residual impact

3. No mitigation measures are required and the residual impact would be of **negligible significance**.

30.3.2 Potential enhancement of the Crustacea fishery

The disposal of dredged material at the Inner Gabbard (East) site has the potential to increase the habitat diversity within the footprint of the disposal with a consequent potential increase in populations of lobsters and crabs. This would represent a potential enhancement of the fishery stock that could be exploited commercially by fishermen through 'potting' to target lobsters and crabs. It is considered that this represents a potential impact of **minor beneficial significance**.

Mitigation and residual impact

No mitigation is required and there is the potential for a residual impact of **minor beneficial significance**.