

## 21 COMMERCIAL AND RECREATIONAL NAVIGATION

1. The level of commercial navigation activity in the estuarine system is described based on an analysis of marine traffic undertaken in 2002. This analysis describes the existing levels of marine traffic travelling to and from the ports within the estuaries and makes predictions regarding the capacity of the system to accommodate further traffic without incurring further traffic delay.

2. The level of recreational navigation is described by discussing the main marina within the estuarine system and the number of berths within these marinas. The consequences of the construction and operational phases of the proposed development on recreational navigation are then described.

### 21.1 EXISTING ENVIRONMENT

#### 21.1.1 Commercial navigation

1. A analysis of marine traffic within the Harbour has recently been undertaken by MARICO Marine (2003) (Appendix 10). The tracks of all vessels passing through the Harwich Haven VTS were recorded over a period of two months. The number of inbound and outbound vessel movements for July and August 2002 are shown in Table 21.1.1.

**Table 21.1.1 Arrivals and departures of marine traffic for July (4<sup>th</sup> to 31<sup>st</sup>) and August (1<sup>st</sup> to 31<sup>st</sup>) 2002**

Port	July 2002			August 2002		
	Inbound	Outbound	TOTAL	Inbound	Outbound	TOTAL
Felixstowe	473	474	947	542	532	1074
Harwich	7	7	14	12	10	22
HIP	178	181	359	208	203	411
Ipswich	138	141	279	148	161	309
Other	20	16	36	24	28	52
No details	10	10	20	8	3	11
<b>TOTAL</b>	<b>826</b>	<b>829</b>	<b>1655</b>	<b>942</b>	<b>942</b>	<b>1879</b>

Source: MARICO Marine (2003)

2. The width and frequency of gaps between vessels moving in a port provides an indication of the capacity for additional traffic on the waterway, providing VTS requirements for vessel movement control and movement planning are taken into account in the analysis. It also allows for ready understanding of the likelihood of additional traffic causing delay. Based on this gap analysis, MARICO Marine (2003) concludes that traffic management, especially in the planning of traffic sequentially, is providing a flow to berths with little or no evidence of hold ups due to traffic problems.

#### 21.1.2 Recreational navigation

1. Recreational navigation is popular within the Stour and Orwell estuaries with a number of marinas, all of which are located in the Orwell estuary, namely:

- Shotley Marina (350 berths);
- Suffolk Yacht Harbour (500 berths);
- Woolverstone Marina (200 berths);
- Fox's Marina, Ipswich (150 berths);
- Neptune Marina, Ipswich (150 berths); and,
- Haven Marina (180 berths).
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## 21.2 POTENTIAL IMPACTS DURING THE CONSTRUCTION PHASE

### 21.2.1 Potential impact on existing traffic at the Landguard Terminal

1. In developing the construction methodology for the proposed development, an important consideration is the need to accommodate the existing services at the existing Landguard Terminal during the construction phase. It is not feasible for the existing traffic at the terminal to be relocated to other terminals within the port as there is no spare capacity to handle it. It is for this reason that the construction of the proposed development is to be phased.

2. During Phase 1 of the construction phase, the Landguard Terminal would be able to continue to operate at its current level of business. On completion of Phase 1, the traffic at the Landguard Terminal would be transferred to Phase 1 in order to allow Phase 2 to be constructed, thus completing the reconfiguration of the terminal.

3. Given the implementation of the measures described above, there would be **no impact** on the existing traffic using the Landguard Terminal.

#### *Mitigation and residual impact*

4. No mitigation measures are required and there would be **no residual impact**.

### 21.2.2 Potential impact on other commercial users of the navigation channels

1. The proposed dredging that would be required during the construction phase is expected to last for a duration of about 18 months. During this period, dredgers would be present within the vicinity of the Landguard Terminal (during the dredging of the berths and approaches to the proposed terminal) and in the area to the west of the channel. Disposal barges would also be present within the navigation channels as they are being loaded and as they navigate out of the Harbour to the offshore disposal ground. All vessel movements and activities would be under the control of the Harwich Haven VTS.

2. The marine traffic assessment undertaken by MARICO Marine (2003) concludes that although there is considerable marine traffic in the Harbour, there is significant spare capacity. Furthermore, the vessels associated with the dredging activity would not be stationed within the navigation channel itself and, therefore, vessels travelling to and from the majority of the Port of Felixstowe, the Port of Ipswich and Harwich International Port would not be affected. Given this approach, it is unlikely that the presence of additional vessels during the construction phase would have a significant impact on other users of the system, particularly given that the movements of all vessels

would be managed by Harwich Haven VTS. It is considered that the impact would be of **negligible significance**.

*Mitigation and residual impact*

3. The HHA should issue a Notice to Mariners to inform other users of the construction works. The residual impact would be of **negligible significance**.

### 21.2.3 Interference with navigational aids in the Harbour

1. The presence of construction plant (e.g. dredgers, disposal barges, etc) within the Harbour has the potential to interfere with navigational aids. For example, navigational aids could be visually blocked by the presence of plant or construction lighting could affect their visibility. Should this occur, there could be a hazard to commercial navigation.

2. The significance of this impact is highly dependant on the conditions under which such an effect occurs, such as the prevailing weather conditions and the presence of other vessels. However, under a worst case situation, there is the potential for an increased risk of collision between vessels; in this situation, a potential impact of **major adverse significance** could arise.

*Mitigation and residual impact*

3. In order to reduce the likelihood of a collision between vessels, all construction vessels must have appropriate signals as required by International Regulations. Furthermore, all construction works (working areas) must be appropriately marked.

4. All measure should be taken to ensure that no navigational aids are obscured by construction traffic or lighting. When dredging is occurring in critical locations, one way passage for larger commercial vessels would be co-ordinated by the HHA Harbour Master. Shipping would be informed of the dredging activities by a Notice to Mariners issued, as required, in advance and distributed widely. In addition, weekly notices indicating the location of dredging and placement activity would be distributed locally and broadcast on appropriate VHF channels.

5. Assuming that the above mitigation measures are implemented, the risk of collision would not be greater than under the current situation. The potential impact of the construction phase is, therefore, considered to be of **negligible significance**.

## 21.3 POTENTIAL IMPACTS DURING THE OPERATIONAL PHASE

### 21.3.1 Potential interference with existing commercial navigation within the system

1. The marine traffic analysis (MARICO Marine, 2003) concludes that there is significant spare capacity within the Harbour (50% of the current level of movements to Felixstowe). Therefore, the increase in traffic arising from the proposed development would have **no impact** on existing traffic levels within the Harbour (i.e. there would be no impact on traffic delay) given the existing traffic management operated by the Harwich Haven VTS. The HHA Harbour Master has confirmed that there are no concerns regarding the effect of increased traffic on existing commercial navigation (D. Shennan, *pers. comm.*).

#### *Mitigation and residual impact*

2. No mitigation is required and there would be **no residual impact**.