



2. CONTENT AND PROCESS OF E I A

2.1. EIA Process

The EIA has been used in this project as an iterative tool alongside technical and design considerations, and public consultation/involvement, to inform the decision-making process. EIA is a process enabling predicted impacts of the project to be determined (scoped) and an assessment made of their significance through detailed studies and surveys of environmental, social and economic impacts. It also allows appropriate mitigation measures to be determined.

This ES includes evaluation of the Borough of Poole's preferred option relative to other options that have been previously studied.

In undertaking the EIA, current legislative requirements have been followed and reference has been made to existing documentation, listed in the reference section.

The EIA process involves several key stages:-

Screening – the stage at which the need for the EIA is determined;

Scoping - a Scoping Report outlines the issues that are likely to be impacted by a project and for which additional surveys and studies will be carried out. At this stage, the boundaries for the EIA are also determined. The Scoping Report for the second opening bridge was issued for consultation in January 2003. A Scoping Opinion was obtained from the Secretary of State (via the Department for Transport) in November 2003 which confirms the extent of the EIA and the issues to be studied as detailed in the Scoping Report;

Baseline Information Collection - for those impacts that are assessed as being significant, further work such as field surveys may be carried out to obtain data. The majority of baseline surveys for the second opening bridge were completed during 2003. Information for the navigation and traffic studies was also collected during 2004;

Data Assessment - the data for each discipline is collated and interpreted. Conclusions are drawn about the magnitude and significance of potential impacts, from the construction and operation of the works, on the baseline situation. This was undertaken in the last quarter of 2003 for the proposed second opening bridge and updated following the consultation in 2004;

EIA Synthesis - at this stage, the results from the assessments of the individual impacts are drawn together and conclusions made about the synergies and interactions between the impacts. This enables an overall conclusion to be reached about the significance of the impact of the works as a whole. This was completed for the project in the last quarter of 2003 and updated following the consultation in 2004;

Environmental Statement – the results from the individual studies for each discipline are collated alongside project details to produce the Environmental Statement. The Statement includes mitigation measures wherever possible to highlight methods of reducing the unacceptable detrimental impacts. Residual impacts where mitigation cannot reduce the impact entirely are highlighted. The Consultation Draft of the ES was produced in February 2004. There then followed a period of consultation (see Chapter 7) prior to the finalisation of this ES for submission to Government, and

Construction Environmental Management Plan (CEMP) - The purpose of such a document is to extract the mitigation measures from an ES, assign responsibility for them and detail the stages at which they should be implemented throughout the construction period. For the proposed second opening bridge it is stated that a CEMP will be produced after the ES has been produced and prior to commencement of construction. Chapter 20 provides more information on what is likely to be included in the CEMP and the mitigation measures required. Both the EA and EN have stressed during consultation that they would wish to see method statements from the contractors to ensure that mitigation is achieved.

2.2. Structure of this Report

The Environmental Statement includes information as required by the TWA Rules 2000 (Rule 11) and the EU Directive. In particular this includes:

- Description of the site and development;
- Outline of the main alternatives studied;
- Significant direct, indirect and cumulative effects, and
- Measures to prevent, reduce or offset significant adverse effects.

A Non-Technical Summary is a condensed version of the Environmental Statement which is written in non-technical language to ensure that all readers, professional or general public, can understand the issues. This summary is available as a separate document.

The Chapters in this report can be grouped into three main sections:-

Introduction and Scheme Information - Chapters 1 to 7 provide information on the background to the project both in terms of legislative and technical requirements,

Technical Disciplines - Chapters 8 to 18 provide details on the assessment of each potentially significant impact (there is a separate Technical Annex for each of Chapters 5 and 8 - 18) and Chapter 19 considers Cumulative Impacts,

Conclusions - Chapters 20 to 22 provide information on construction, safety, mitigation measures, the Construction Environmental Management Plan, the EIA synthesis and the conclusions of the EIA.

The reader should recognise that there are several technical Chapters that interrelate with each other. In particular, the assessment of the impacts in the physical environment has specific overlaps. The results of the hydrodynamic modelling (Chapter 10) inform Chapter 8 (Contaminated Land, Groundwater and Sediments), Chapter 9 (Surface Water Quality) and Chapter 11 (Ecology). Each of the Chapters interprets the results of the modelling with reference to its particular discipline and identifies impacts. The ultimate receptor of the majority of impacts in the physical environment is ecology.

Similarly, there are interrelations specifically between Chapter 12 (Landscape, Townscape and Visual Amenity) and Chapter 13 (Archaeological and Cultural Heritage).

Also, the data from the Traffic and Transport (Chapter 15) modelling is used to enable assessments to be undertaken for Air Quality and Climate (Chapter 16) and Noise and Vibration (Chapter 17). These assessments were undertaken using the best available traffic data at the time.

There are several non-technical photographs included in the Environmental Statement that are for

illustrative purposes only and are therefore not directly referred to in the text. It is advised that the figures in the Environmental Statement are best viewed in colour. It is also noted that the maps and aerial photographs used are the most up to date commercially available versions at the time of printing.

2.3. The Scoping Report

A summary matrix was published in January 2003 (Borough of Poole, 2003) to provide an initial evaluation of the likely beneficial or adverse effects of implementing a second opening bridge over the Backwater Channel.

A three-fold scale of impact was adopted, namely low (an effect with only local significance), medium (an impact which may extend beyond the study area) and high (an effect with regional or wider significance). To decide on the level of impact at this early stage published information was drawn upon to make a judgement as to the sensitivity, rarity and perceived value of the receiving environment, as well as the magnitude, duration and frequency of the impact. This provided an indication of the potential environmental impacts that should be addressed in detail in the EIA. The Scoping Report was issued widely to Statutory and Non-Statutory consultees for comment. As mentioned above, a Scoping Opinion was also obtained from the Department for Transport (in November 2003) which confirmed the Government's requirements for issues to be included in the ES but did not change the scope of the project

Table 2.1 summarises an initial evaluation of the likely beneficial or adverse effects of the proposal made at the Scoping stage. This formed a basis for discussion amongst consultees. Consultation gathered a large amount of information on real and perceived risks and helped focus the project resources on a prioritised list of potential impacts needing further investigation. The survey requirements were amended as required as the project progressed and as a result of further consultation. EIA is an interactive process and this matrix therefore differs from the final matrix (see Chapter 21) submitted in the ES.

2.4. Assessing the Significance of Potential Impacts

The potential impacts identified through the Scoping study are then studied during the EIA process and are assessed for both their importance and magnitude. To enable this, baseline information was collected from surveys and research by individual specialists and an assessment made on the data available. A methodology was devised to ensure consistency in the way the impacts were assessed across disciplines. This included information on the nature of: whether they are construction or operational impacts, positive or negative, permanent or temporary, direct or indirect, their timescale, associated cumulative and secondary effects and their importance and magnitude. The scale of importance and magnitude of an impact for each discipline has been determined. This information is included as impact summary tables in each Technical Annex.

Chapters 8 to 18 describe the results from the corresponding Technical Annexes and provide a conclusion on the predicted impacts. The tables in Chapter 21 of the Environmental Statement summarise this information. The overall predicted impact of the proposed bridge on the environment is then determined in Chapter 22.

Environmental Concerns	Impact		Potential Significance of Impact							
			Adverse			Neutral	Beneficial			
			Low	Med	High		Low	Med	High	
Soils, geology, contamination and geotechnical	Disturbance of contaminated soils. Geotechnical constraints for foundations.	C		Orange						
		LT				Blue				
Hydrodynamics, morphology and hydrology	Scour of sediments from change in tidal flow.	C		Orange						
		LT	Yellow							
Surface water quality	Disturbance of contaminated silts and runoff from new bridge	C		Orange						
		LT	Yellow							
Groundwater quality	Migration of contaminated silts down piles to groundwater aquifer will be the most significant impact	C		Orange						
		LT				Blue				
Flora, fauna and habitats	Disturbance of contaminated silts and loss of inter-tidal muds	C		Orange						
		LT	Yellow							
Fisheries	Disturbance of contaminated silts will be largest potential impact	C		Orange						
		LT	Yellow							
Landscape and visual amenity	Impact likely to be beneficial to landscape	C	Yellow						Orange	
		LT								
Air quality and climate	Changing traffic flow	C	Yellow							
		LT	Yellow							
Cultural heritage	Some potential to find artefacts	C		Orange						
		LT				Blue				
Traffic and transport	Potential for construction impacts; permanent effects beneficial	C		Orange						
		LT								Red
Navigation	Disruption to boat movement during construction period	C		Orange						
		LT				Blue				
Noise and vibration	Construction noise and change in traffic flows	C	Yellow							
		LT	Yellow							
Waste management	Disposal of construction waste including sediment and soil	C	Yellow							
		LT				Blue				
Health and safety	Beneficial safety for pedestrians and cyclists	C	Yellow							
		LT							Orange	
Social issues	Reduced congestion and regeneration has potential to be very beneficial	C				Blue				
		LT								Red
Economics	Regeneration	C				Blue				
		LT							Orange	

C = Construction
LT = Long Term

Table 2.1 – Impacts Summary Table from Gifford Scoping Report January 2003 (Gifford and Partners Limited (2003a)).

