ArupTransport

Tyne and Wear Passenger Transport Authority

New Tyne Crossing

Proof of Evidence on Environmental Matters

By Dr. Paul Johnson BSc, PhD, MI Biol, MRTPI, MI Env Sci

APPENDICES

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Ove Arup & Partners Ltd
Central Square, Forth Street, Newcastle upon Tyne NE1 3PL
Tel +44 (0)20 7636 1531 Fax +44 (0)20 775
www.arup.com

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APPENDIX A

Code of Construction Practice

1. INTRODUCTION

1.1 Purpose and Application of Code

The construction of the New Tyne Crossing will involve engineering works within the urban areas of North and South Tyneside. A range of environmental legislation exists to protect the public and the environment, but, in addition, this Code of Construction Practice ("the Code") has been prepared to provide a framework for the management of the project and its potential effects, which the TWPTA will be obliged to adopt and implement in constructing the New Tyne Crossing.

The purpose of the Code is to maintain satisfactory levels of environmental protection and minimise disturbance and inconvenience to local residents, businesses and the general public from the proposed construction activities, so far as is reasonably practicable.

The TWPTA's obligation to adopt and implement the Code will be imposed by virtue of condition [4] of the First Secretary of State's direction (the "Planning Direction") that under Section 90(2A) of the Town and Country Planning Act 1990 planning permission is deemed to be granted for the works listed in that direction and the River Tyne (Tunnels) Order 200X (the "Development").

The condition will require that before commencement of development Management Plans, which are described in greater detail below, must be submitted to and approved in writing by the relevant local planning authority. Once approved the development of the New Tyne Crossing must be carried out in accordance with this Code of Construction Practice and the Management Plans.

The relevant local planning authority is the North Tyneside Council for that part of the works, which falls to the North of the centre-line of the River Tyne. To the South of that line the works fall within the jurisdiction of South Tyneside Metropolitan Borough Council. The two local planning authorities are responsible for the approval of matters under this Code. They are also able to enforce the terms of the conditions contained in the Planning Direction and this Code.

The TWPTA will be responsible for ensuring that concessionaires and/or contractors building the New Tyne Crossing observe the terms of the Code and the Planning Direction. The local planning authorities will be responsible for and have sufficient powers under the Town and Country Planning Act 1990 to secure compliance with the terms of these documents. They may use these powers against any concessionaire or contractor constructing the New Tyne Crossing. In the Code a reference to a relevant local planning authority is to the local planning authority with jurisdiction for the area in which the element of the development is to be carried out.

Throughout the Code reference is made to the TWPTA, rather than to concessionaires and contractors. This is for ease and does not alter the current intention of the TWPTA that the New Tyne Crossing will be constructed on behalf of the TWPTA by a concessionaire.

1.2 The application for the proposed River Tyne (Tunnels) Order has included an Environmental Impact Assessment. The resultant Environmental Statement ("ES") refers to mitigation measures necessary to mitigate the potential environmental impacts of the New Tyne Crossing. The purpose of the Code and the Planning

Direction (and the conditions that it contains) is to secure the adoption and implementation of those mitigation measures.

1.3 Nothing in this Code will prevent the submission of further or varied applications in relation to any approval sought.

1.4 All of the public bodies to whom this Code applies including the relevant local planning authorities are subject to a duty to act reasonably and without delay in approving any matter which is the subject of an application within the Code.

2. ENVIRONMENTAL MANAGEMENT SYSTEM

EMS:

2.1 Prior to commencing the Development an Environmental Management System ("EMS") which shall be in accordance with the principles set out in ISO 14001, this Code and the Environmental Statement. The EMS shall be submitted to and approved in writing by the relevant local planning authorities. The EMS shall contain:

(a) an environmental policy statement;

(b) a statement of responsibilities for management of environmental matters;

(c) the identity of a designated environmental manager responsible for implementation of and monitoring compliance with the Code (the "Environmental Manager");

(d) details of staff training to ensure compliance with the Code;

(e) procedures for audit, reporting and review of compliance with the Code; and

(f) a procedure for dealing with comments and complaints in respect of the construction of the New Tyne Crossing received from third parties.

2.2 Community Relations

2.2.1 At least one week before the commencement of construction works in any area likely to be affected by those works including householders, the TWPTA will notify occupiers of premises, which may be affected of the nature and duration of those works. A contact name for a community relations representative(s), telephone number and address will be provided for any enquiries.

2.2.2 Literature explaining the progress of the project will be circulated in the area affected by the New Tyne Crossing at regular intervals. A project web site shall be established containing details of the project, educational resources and contact details.

2.2.3 At appropriate locations on the site boundary fencing or hoardings, in local community facilities and in local authority offices, a telephone helpline number will be publicly displayed for any queries or complaints concerning the project. The Environmental Management System will provide a mechanism for the timely processing of enquiries or complaints to a satisfactory conclusion.

3. GENERAL ENVIRONMENTAL MANAGEMENT

3.1 Objectives

To ensure that the works are carried out in accordance with the Code and in such a way as to minimise, as far as reasonably practicable, the adverse environmental impact of the construction activities and inconvenience to the public, arising from the potential disruptive effect of construction.

3.2 General Environmental Management Plans

3.2.1 Approval

Prior to commencement of the Works a General Environmental Management Plan ("GEMP") shall be submitted to the relevant local planning authorities and approved in writing. The Works shall be carried out in accordance with the GEMP unless with the prior written approval of the relevant local planning authorities. The GEMP shall include the matters set out below:-

3.2.2 Construction Working Hours

3.2.2.1 Land Based Works

(i) The TWPTA will comply with the limits on working hours contained in condition [15] of the Planning Direction except as the following permits.

(a) Earthworks and other season or weather dependant activities may be carried out outside the limits on working hours, but within the hours of daylight, with the prior written approval of the relevant local planning authority;

(b) Works remote or distant from sensitive receptors including storage of dredged arisings on parcel 208 listed in the Book of Reference or works in Howdon Yard may be carried out during such hours as the relevant local planning authority may approve in writing;

(c) Where reasonably necessary, works requiring night-time railway possessions or completion of activities within a certain required time limit such as dredging may be carried out during such reasonable hours as are notified to the relevant local planning authority in advance, but shall be kept to a minimum; and

(d) Works to the interior of the Existing Tyne Tunnels and the New Tyne Crossing shall not be restricted.

(ii) In the event that pre-planned building operations extend beyond the limits on working hours due to unforeseen circumstances the time, location and nature of the over-run will be notified to the relevant local planning authority as soon as possible and records kept by the Environmental Manager. The relevant local planning authority will provide a telephone number and nominate an officer to receive such notifications which will be reviewed regularly.

(iii) Where it is reasonably necessary for building operations to extend beyond the limits on working hours or to exceed approved limits, the TWPTA will apply

at least 14 days in advance of the start of those works for a variation to the approved working hours, setting out the revised construction programme or method and, where relevant, noise calculations.

(iv) Except in an emergency, where an extension of working hours relates to operations of a more urgent or critical nature (such as a key activity likely to delay other key activities) the TWPTA will apply to the relevant local planning authority where practicable 7 days, but at least two working days, ahead of the start of those works an application for a variation to the agreed consent.

(v) Where building operations outside the limits on working hours or approved hours has been approved, occupiers of nearby residential or other sensitive property who are likely to be affected will be informed as soon as reasonably practicable by the TWPTA about this change and, where appropriate, the likely duration of works.

3.2.2.2 Marine Operations

All construction or dredging operations within the river will be undertaken at such reasonably appropriate times as by the Port of Tyne Authority may allow.

3.2.3 Construction Site Location, Layout and Appearance

The GEMP shall contain general proposals for site layout to ensure, as far as reasonably practicable, that:

(i) Existing vegetation and topography is utilised to screen sites and that temporary earth mounding or other temporary screening will be included, where appropriate, within construction sites;

(ii) Storage sites, fixed plant and machinery, equipment and temporary buildings will be located to limit adverse environmental effects;

(iii) Security cameras will be located and directed so that they do not intrude into occupied residential property.

3.2.4 Screening of Construction Sites and Erection of Hoardings

The GEMP shall provide in respect of the phases of the Works that prior to the commencement of building operations a scheme of screening and hoarding for construction sites and working areas shall be submitted to and approved in writing by the relevant local planning authority. The approved scheme or schemes shall be implemented in carrying out the works except with the prior written consent of the relevant local planning authority and include the following:

(i) As far as reasonably practicable, visual intrusion of construction sites on nearby residential properties and local facilities and amenities will be contained and limited. Sites will be bounded, where reasonably necessary, by fencing or screening. The form of any screening will have regard to matters including location, existing use, type of building operations, security, proximity to sensitive receptors, noise attenuation, visual effect, prevention of dust break out and permanent landscape design. Where reasonably

practicable, permanent bunds or screening will be constructed to avoid any need for temporary screening and may include the use of planting.

(ii) Fencing and screening will be maintained in reasonable condition including removal of graffiti and fly posters. Repairs shall be carried out as soon as reasonably practicable.

(iii) Where temporary or permanent possession of any land is taken and a fence is removed a fence will be erected on the new temporary or permanent boundary where it is reasonably necessary to maintain the security of any property.

(iv) Where reasonably necessary, all construction sites and working areas will be fenced so as to deter public access.

(v) Gates in any fencing or hoarding should, as far as is reasonably practicable, be positioned and constructed to minimise the noise transmitted to nearby noise sensitive buildings from building operations or from plant entering or leaving the site. Gates should not open outwards onto the highway.

(vi) Unless the relevant local authorities shall otherwise agree in writing, all hoardings shall be painted in a plain, uniform manner but will have contrasting markings at projecting angles to the satisfaction of the relevant local planning authorities.

(vii) Where necessary for safety and security reasons, hoardings will be lit from half an hour after sunset to half an hour before sunrise. Site boundaries will be provide with illumination sufficient for the safety of the passing public, including disabled people. In particular, precautions shall be taken to avoid shadows cast by hoardings on surrounding footpaths and roads.

(viii) Any lighting of construction sites or access routes will take account of safety and security and will be positioned and directed so as not to intrude on adjacent buildings and land uses unnecessarily; cause distraction or confusion to passing drivers on adjoining public highways; or interfere with road traffic signals, road signing, railway signals or navigation lights.

3.2.5 Pest Control

Preventative pest control measures shall be adopted in the GEMP, including where reasonably necessary:

(i) Removal or stopping and sealing of drains and sewers brought into disuse;

(ii) Prompt treatment of any pest infestation and arrangements for effective preventative pest control; and

(iii) Appropriate storage and regular collection of putrescible waste and timely removal of fly tipped material.

Pest infestation of construction sites will be notified to the relevant local planning authority as soon as is practicable.

3.3 Safety and Security

3.3.1 Emergency Procedures

The GEMP will set out Emergency Procedures for each construction site comprised in any phase of the works which shall have been prepared in consultation with relevant emergency services.

3.3.2 Cranes

Crane arcs will be confined to within the site boundary and will not oversail the public highway without the prior agreement of the relevant local planning authority.

3.4 Good Site Housekeeping

3.4.1 Personnel

The TWPTA will use reasonable endeavours to ensure that the behaviour of construction or delivery personnel on site does not cause offence to the public.

3.4.2 Location of Site Accommodation and Facilities

All site huts, office accommodation, toilets and welfare facilities will be accommodated within the boundaries of the site. No living accommodation will be permitted on site except with the approval of the relevant local planning authorities.

3.4.3 Site Security

Adequate security will be exercised by the TWPTA to prevent unauthorised entry to or exit from the site. Site gates will be closed and locked when there is no site activity and appropriate site security provisions will be employed. Provision of alarms will follow Health and Safety Executive and local authority requirements, and incorporate an appropriate cut-out period.

4. PUBLIC ACCESS AND TRAFFIC MANAGEMENT

4.1 Objectives

To ensure that the works are carried out in such a way that avoids inconvenience to the public arising from changes to the road and highway networks and to minimise disruptive effects of construction traffic on designated routes so far as is reasonably practicable.

4.2 Traffic Management Plan

4.2.1 Prior to the commencement of each phase of the Works a Traffic Management Plan shall be submitted to and approved in writing by the relevant local highway authority in relation to that phase. Save where otherwise agreed in writing by the relevant local highway authority that phase of the Works shall be carried out in accordance with the Traffic Management Plan.

4.2.2 The Traffic Management Plan will include details in relation to the relevant phase of:

(i) Temporary traffic control measures;

(ii) Temporary and permanent accesses to the works;

(iii) Temporary road layouts;

(iv) Signage for construction vehicle access;

(v) Routes to be used by traffic generated by construction activity including:

- Suitability of routes for use by specified vehicle types;
- Routes restricted for use within specified time periods;
- Routes prohibited for use by construction traffic; and
- Lorry holding areas;

(vi) Means of monitoring lorry routes, including records of all drivers and signed undertakings to comply with approved routes for construction traffic;

(vii) Measures for transport of construction personnel to and from site; and

(viii) Means of notification and communication with those operating construction traffic.

4.3 Temporary and Permanent Road and Footpath Closures and Diversions

Each Traffic Management Plan shall require that public notices are issued in advance of any closure of roads or footpaths informing local residents and businesses of dates and durations of closure. Where reasonably necessary suitable and sufficient signs and barriers indicating temporary and permanent closures to public accesses and rights of way shall be provided including wheelchair accessible routes.

4.4 Works Affecting Carriageways and Footways

Each Traffic Management Plan shall include the matters set out in paragraphs 4.1 to 4.6 below that:

4.4.1 Before commencing construction of any works which will interfere with a carriageway or footway of any highway notice shall be given to the relevant local highway authority setting out: the proposed date of commencement of such works; the area of carriageway or footway to be affected; the duration of any such interference; and measures to protect the public.

4.4.2 Before commencing construction of any works which will interfere with a carriageway or footway of any highway a survey of condition of the area to be affected shall be carried out and submitted to the relevant local highway authority and such survey shall include photographic or video information where necessary.

4.4.3 Where temporary footways are provided or existing footways are retained reasonable access shall be provided for people, including those with disabilities, wheelchairs and pushchairs, in accordance with the following requirements:

(i) Any temporary footways and carriageways shall be constructed with uniform surfaces. There should be no steps and any gradients should be no greater than 1 in 12.

(ii) Pavement ramps will be provided at all junctions of footways with carriageways. Gradients must not exceed 1 in 12 and the base of the ramp must be flush with the carriageway.

(iii) All temporary footways and ramps must be surfaced in non-slip materials to the reasonable satisfaction of the relevant local highway authority.

(iv) Existing footway widths around construction sites will be maintained except where this exceeds 2 metres when a reduction to a clear width of not less than 2 metres shall be permitted.

(v) Heavily used footways may have to be maintained at their existing width, although a reduction to a clear width of 3.0 metres shall be permitted.

(vi) Headroom clearance over footways will be a minimum of 2.44m. A horizontal clearance of 0.6m will be provided from the kerb-line, where practicable, for any hoarding projection under 5.1m high, to avoid fouling by vehicles. If any projection is over the carriageway, the clearance must not be less than 5.1m.

(vii) All pedestrian routes diverted onto the carriageway will be clearly defined by continuous barriers and will include a build-out and ramping parallel to the kerb line.

4.5 Maintenance and Repair of the Highway

Where any damage is caused to the highway in the vicinity of any construction site by any person acting on behalf of the TWPTA that damage shall where reasonably practicable be rectified within 2 hours if a trip or depression is of 25mm or more or otherwise within 24 hours. Permanent reinstatement of any such damage to a highway should be carried out to the reasonable satisfaction of the local highway authority.

4.6 Avoidance of Nuisance

4.6.1 Mud on Roads

The TWPTA will take appropriate measures to minimise mud on roads, which include:-

(i) The provision of easily cleaned hard standings for vehicles entering, parking at and leaving the site; and/or

(ii) The provision of wheel washing facilities including, where practicable, mechanical wheel spinners; and/or

(iii) The use of an approved mechanical road sweeper to clean hard standing and clear any mud or debris deposited by vehicles entering or leaving any construction site on roads or footpaths in the vicinity. The road sweeper shall be readily available whenever the need for cleaning arises and will be properly used and maintained; and/or

(iv) The adequate sheeting of each lorry load of spoil removed, to prevent spoil falling off during its journey.

4.6.2 Environmental Standards

All vehicles waiting to enter or leave construction sites shall be required to switch off their engines to prevent unnecessary noise and air pollution.

4.6.3 Parking

No day-time or overnight parking of lorries will be permitted within the vicinity of any construction sites except in specified holding areas for lorries awaiting to deliver or remove materials to or from the site or with the prior written approval of the local highway authority.

4.6.4 Site Access

Lorries shall enter and exit the site in a forward direction except in special cases or where space restrictions do not permit this. In such special cases, they shall only do so under the supervision of a competent banksman.

4.6.5 Waste and Spoil Movements

The Traffic Management Plan will set out measures to ensure that so far as is reasonably practicable waste and spoil is moved by haul road, public main road, rail, barge or conveyor and avoids rural lanes or residential areas.

5. NOISE AND VIBRATION

5.1 Objectives

To control and limit noise and vibration levels, so far as is reasonably practicable, so that residential and other sensitive receptors are protected from excessive noise and vibration levels arising from construction activities.

5.2 General

Prior to commencement of each phase of the works a Noise and Vibration Management Plan in accordance with BS5228 shall be submitted to the relevant local planning authority and approved in writing. Each phase of the works shall be carried out in accordance with the relevant Noise and Vibration Management Plan unless with the prior written approval of the relevant local planning authority.

5.3 Construction Noise/Vibration Control

Each Noise and Vibration Management Plan shall require that:

5.3.1 Background baseline noise survey(s) shall be carried out at least 28 days before building operations commence. Noise and vibration levels shall be monitored and recorded during the course of building operations. Records of noise and vibration monitoring shall be provided to the relevant local planning authorities.

5.3.2 Only plant conforming to relevant national or international standards, directives and recommendations on noise and vibration emissions will be used

5.4 Detailed Noise and Vibration Control Provisions

5.4.1 Method Statement

Each Noise and Vibration Management Plan will contain:

(i) an outline of proposed construction methods;

(ii) a list of the type of plant to be used including manufacturer's literature establishing the sound power level of plant and proposed noise and vibration control methods;

(iii) a work programme which identifies the location and duration of each significant noise generating activity;

(iv) the sound power levels for each item of plant and overall sound power level for each relevant activity;

(v) an assessment of predicted noise and vibration levels at specified locations supported by calculations.

(vi) A plan identifying residential property and other sensitive receptors which may be directly affected by noise and vibration from the construction works;

(vii) A statement of the trigger levels/circumstance under which additional mitigation will be provided at properties adversely affected by noise or vibration and the procedures for provision of such mitigation;

Table 5.3 - Airborne noise trigger levels for sound insulation and temporary re-housing:

Day	Time	Averaging Period T	Noise Insulation Trigger Level ^{L}Aeq, T	Temporary Re-Housing Trigger Level ^{L}Aeq,T
Mondays to Fridays	0730 – 0800	30 mins	70	80
	0800 – 1800	10 hours	75	85
	1800-1930	30 mins	70	80
	1930-2200	1 hour	65	75
Saturdays	0730 – 0800	30 mins	70	80
	0800- 1600	8 hours	75	85
	1600-1630	30 mins	70	80
	1630-2200	1 hour	65	75
Sundays & Public Holidays	0730 - 2200	1 hour	65	75
Any day	2200-0730	1 hour	55	65

(viii) A requirement that the use of any plant or equipment required for any emergency situation which causes a departure from the above shall be notified to the relevant local planning authorities as soon as is practicable.

5.4.2 Selection and Use of Equipment

Each Noise and Vibration Management Plan will require that:

(i) Best Practicable Means are employed to minimise disturbance due to noise and vibration

(i) Vehicle and mechanical plant used for the purpose of the Works shall be fitted with effective exhaust silencers, will be maintained in good and efficient working order and operated in such a manner as to minimise noise emissions.

(ii) On surface sites, where environmental disturbance may arise, compressors shall be "sound reduced" models fitted with properly lined and sealed acoustic covers, which must be kept closed whenever the machines are in use. Pneumatic percussive tools shall be fitted with the most effective muffler or

silencer reasonably available and suitable for use with each particular item of plant.

(iii) Where necessary during works of demolition equipment that breaks concrete by bending rather than by percussion or such other equipment as may be approved by the relevant local planning authorities shall be used, as far as is reasonably practicable.

(iv) Where reasonably practicable, use of hydraulically operated or vibratory hammers to drive and extract sheet piling should be preferred in place of diesel or air driven impact or drop hammers.

(v) Where necessary and practicable, rotary drills and bursters actuated by hydraulic or electrical power should be used for excavating hard material.

(vi) Noisy plant or equipment should be sited as far away as is practicable from noise sensitive buildings.

5.5 Sound Insulation and Temporary Rehousing

5.5.1 Each Noise and Vibration Management Plan will require that where, in spite of the measures set out in this Code noise levels at properties identified in that Noise and Vibration Management Plan are expected to exceed the trigger levels for the periods defined below, a scheme for reimbursement of the reasonable costs of approved noise insulation or a scheme to facilitate temporary re-housing of occupants as appropriate shall be approved by the relevant local planning authority and be implemented. The scheme will include provision for the notification of affected parties of the availability of the Scheme. The Scheme will provide that:

(i) Noise insulation or payment of reasonable costs against agreed bills will be offered to owners, where applied for by owners or occupiers, if all of the following apply to a property lawfully occupied as a permanent dwelling:

- the Predicted Noise Level exceeds the Noise Insulation Trigger Level at that property for at least ten days out of any period of fifteen consecutive days or alternatively 40 days in any 6 month period;
- noise insulation does not already exist that is of an equivalent standard to that which would be allowed for under the Noise and Vibration Management Plan;
- the property complies with all other requirements of the Noise and Vibration Management Plan.

(ii) Temporary re-housing (or the reasonable costs thereof) will be provided, where applied for by lawful occupiers, if both of the following apply to a dwelling:

- the Predicted Noise Level exceeds the Noise Trigger Level for Temporary Re-housing at that property for at least ten days out of any period of fifteen consecutive days or alternatively 40 days in any 6 month period; and

- the property complies with all other requirements of the Noise and Vibration Management Plan.

(iii) Where it is not practicable to install sound insulation to achieve the required standard to some lightweight dwellings temporary rehousing will be offered if the property would otherwise be eligible for sound insulation, provided that these dwellings were legally occupied as permanent residences on the day the Works are proposed to commence.

(iv) Where temporary re-housing is offered this will not exempt the TWPTA from the requirement to offer noise insulation. However, if the trigger level for noise insulation is predicted to be exceeded only while the residents are in temporary re-housing, noise insulation need not be made available.

5.5.2 Noise Trigger Levels

Each Noise and Vibration Management Plan shall apply.

The airborne noise trigger levels in the case of noise insulation to residential properties or temporary rehousing presented in Table 5.3 above. The noise levels shall be predicted levels, due to construction noise only, 1 metre from any affected facade containing windows to bedrooms or living rooms in any property likely to be affected by Noise caused by construction of the Works.

Sensitive buildings other than dwelling house, including commercial and educational establishments, will be separately identified in each Noise and Vibration Management Plan, and be subject to individual assessment and treatment as is reasonably necessary having regard to their construction, use and location. Relevant national standards and guidelines, existing internal noise levels and precedents will be used as a basis for setting trigger levels for individual buildings.

5.6 Vibration

(i) Human Exposure

The implementation of the works will comply with BS 6472: 1992 (Evaluation of Human Exposure to Vibration in Buildings (1 Hz to 80Hz)).

(ii) Protection of Structures

Demolition and construction activities will be carried out in such a way that so far as is reasonably practicable vibrations arising do not cause significant damage to adjacent structures. Guidance on achieving this is contained in BS 7385: Part 2: 1993: Evaluation and measurement for vibration in buildings.

6. DUST AND AIR POLLUTION

6.1 Objectives

To ensure that the works are carried out in such a way that emissions to the air of dust, odour and pollutants are limited and that methods are employed to avoid the creation of a statutory nuisance and to protect the amenities of schools, residential properties and other sensitive receptors

6.2 Control Measures for Dust

Prior to the commencement of each phase of the works a Dust and Air Pollution Management Plan shall be submitted to and approved in writing by the relevant local planning authority. The approved Dust and Air Pollution Management Plan shall be implemented in carrying out the works, except with the prior written consent of the relevant local planning authority.

The Dust and Air Pollution Management Plan shall provide the following:-

(i) Material stockpiles shall be enclosed whenever reasonably practicable and damping down of dusty materials using water sprays carried out during dry weather;

(ii) Heavily used areas shall be hard surfaced and will be kept clean by regular brushing and water spraying;

(iii) Cutting or grinding of materials on site shall include dust suppression measures on any cutting or grinding equipment to be used;

(iv) Plant which may generate dust shall be shielded and/or enclosed wherever reasonably practicably;

(v) During demolition operations, rubble chutes shall be watered, skips and covered and buildings screened with debris screens/sheet;

(vi) Materials should be stored away from the construction site boundaries, wherever possible;

(vii) Unless reasonably necessary, no materials shall be burned within a construction site;

(viii) Unsurfaced haul routes and verges shall receive regular damping down and cleaning where located close to sensitive locations;

(ix) Appropriate vehicle speed limits on haul roads and other unsurfaced areas of the site shall be enforced;

(x) Engine exhausts shall be directed vertically upwards where possible, and all vehicles used shall comply with MOT emission standards at all times;

(xi) Completed earthworks shall be sealed and/or revegetated as soon as reasonably possible following their completion;

(xii) Mixing of large quantities of concrete or bentonite slurries shall be carried out in enclosed/shielded areas wherever reasonably practicable; and

(xiii) During construction phase of any new buildings these will be screened whenever practicable.

6.3 Monitoring

Levels of any dust and air pollution shall be monitored and recorded in accordance with a scheme set out in each Dust and Air Pollution Management Plan. Records of any dust and air pollution monitoring shall be provided to the relevant local planning authorities.

6.4 Odour

The Dust and Air Pollution Management Plan will contain such measures as may be reasonably necessary to suppress or avoid odour from any spoil, waste or other arisings, or the carrying out of other activities.

7. CONTAMINATED LAND

7.1 Objectives

To ensure that the works are carried out in such a way as to prevent, contain or limit, as far as reasonably practicable any adverse impacts arising from the presence of contaminated land or material found during the construction activities.

7.2 Contaminated Land Management Plan

Prior to the commencement of each phase of the Works, a Contaminated Land Management Plan shall be submitted to and approved in writing by the relevant local planning authority and the Environment Agency. The approved Contaminated Land Management Plan shall be implemented in carrying out the relevant phase of the Works, except with the prior written consent of the relevant local planning authority.

The Contaminated Land Management Plan will comply with the following provisions

7.2.1 Ground Investigation and Testing

The Contaminated Land Management Plan shall include a study establishing a detailed site history, together with a site investigation incorporating chemical analysis for reasonably appropriate chemical parameters. This ground investigation will include a risk assessment identifying potential hazards, and appropriate precautions.

7.2.2 Specific Controls

Methods to be adopted in the Contaminated Land Management Plan shall where reasonably necesary include the following:

(i) Methods for identification and assessment of anticipated and unforeseen ground contamination along the route;

(ii) Marking of excavation works to identify potentially contaminated areas;

(iii) Sampling and testing of excavated soils;

(iv) The classification of contaminated materials likely to be encountered and/or contaminated spoil arisings according to site specific criteria in order to define their potential:

- for re-use, both on and/or off site; and
- as a hazard requiring appropriate health and safety precautionary measure together with these measures;

(v) Methods for control of contaminants and discharges in their in-situ or mobilised form, for solids, liquids, gas and leachate including such measures as may be reasonably necessary for the control and monitoring of methane gas or other hazardous gas;

(vi) Handling and disposal procedures including:

- Placing soil excavated from remediation areas on sheeting or other protective layer;

- Implementing procedures and protocol to prevent construction workers, site visitors and users of adjacent sites from being exposed to contaminated materials;
- measures for limiting dust generation from potentially contaminated materials; and
- systems to record and monitor the movement and deposition of waste material leaving the site; and

(vii) Procedures for informing contractors and workers of correct working practices including a Works' Safety Information Sheet covering hygiene, working practices and clothing requirements being prominently displayed in rest/mess rooms and wash rooms.

8. PROTECTION OF SURFACE AND GROUNDWATER RESOURCES

8.1 Objectives

To ensure that the works are carried out and working methods implemented to protect surface and groundwater from pollution and other adverse impacts including changes to water levels, flows and quality in accordance with the Plan.

8.2 Surface and Groundwater Management Plan

Prior to the commencement of each phase of the Works, a Surface and Groundwater Management Plan shall be submitted to and approved in writing by the relevant local planning authority and the Environment Agency. The approved Surface and Groundwater Management Plan shall be implemented in carrying out the relevant phase of the Works except with the prior written consent of the relevant local planning authority and the Environment Agency.

Each Surface and Groundwater Management Plan shall include:-

(i) A description of the water resources likely to be affected by construction activity);

(ii) Measures to protect the water resources from pollution;

(iii) Proposal for discharges to watercourses or public sewers directly or via settlement facilities;

(iv) Installation of settling facilities and interceptors;

(v) Measures for potentially polluting substances including silt, oils and other contaminants;

(vi) Proposals for monitoring and management of drainage systems and settlement/interception facilities;

(vii) Measures for management of flood risk and maintenance of control measures;

(viii) Monitoring arrangements for licensed abstractions; and

(ix) Water quality monitoring arrangements.

8.3 Disposal of Seepage, Waste Water and Ground Water

Each Surface and Ground Water Management Plan shall require that:

(i) Prior to any excavation below the water table, including any site de-watering, the TWPTA will inform the Environment Agency (the "Agency") of the works to be conducted. The de-watering and disposal measures will be approved by the Agency and an Abstraction Licence shall be obtained.

(ii) All soakaway and drainage arrangements will be determined in consultation with the Environment Agency.

(iii) All hazardous and potentially polluting substances including oil drums or containers on site are properly controlled and labelled and that no oil or other contaminants are allowed to reach water courses or groundwater

(iv) Foul water and sewage effluents produced by the construction workforce shall be contained by temporary foul drainage facilities to be installed.

8.4 Control Measures

Each Surface and Ground Water Management Plan shall require that:

(i) The Works shall be carried out in compliance with BS 6031:1981 *Code of Practice for Earthworks*, regarding the general control of site drainage; control of construction site run-off to ditches; discharge of surface run-off or water in excavations; and control of use of potentially hazardous liquids.

(ii) Any watercourse diversions or new lengths of culvert will be brought into use before existing watercourses or culverts are abandoned.

(iii) Seepage and wastewater arising from the works will be collected and discharged via a settlement tank or pond to local watercourses in accordance with reasonable standards for treatment, prior to discharge agreed by the local authorities and where applicable, the Environment Agency.

(iv) All discharge systems will contain interceptors.

(v) Soakaway discharge will only be permitted where the effluent is to be acceptable to the reasonable requirements of the Environment Agency. Contaminated water or water which is likely to be contaminated must be discharged into sewers by tankers or other approved means of disposal in accordance with all necessary consents.

(vi) Drainage to the River Tyne will not be permitted without the prior approval of the Environment Agency. In requesting permission for any such discharge the source and quality of the water shall be identified.

(vii) For those parts of the site that are adjacent to the River Tyne, suitable precautions including siting and bunding shall be taken to prevent the entry of pollutants into the river. On sites adjacent the River Tyne where there is a potential risk to the river, emergency procedures shall be set out in the Surface and Groundwater Management Plan.

(viii) If spoil removal and material delivery is to be made by barge, the construction materials and spoil or other waste materials shall not be deposited in surface watercourses. Contaminated materials shall not be transported on the Tyne except with the agreement and appropriate handling facilities and infrastructure with the Environment Agency.

9. RIVER TYNE

9.1 Objectives

The objectives are to minimise as far as is reasonably practicable, the effects of dredging, construction in the river and deposition of materials in the river, on fish and the ecology of the River Tyne, upstream and downstream of the site, and the effect on navigation and the free passage of vessels

Construction of the New Tyne Crossing will require excavation of the river bed in defined periods of the year, the use of equipment which fulfils specific requirements for minimisation of disturbance of silt, the monitoring of the effects of construction in the water and measures to minimise the interference with navigation.

9.2 River Tyne Management Plan

Prior to the commencement of works in the River Tyne a River Tyne Management Plan shall be submitted to and approved in writing by the relevant local planning authorities and the Environment Agency. The approved River Tyne Management Plan shall be implemented in carrying out the works in the River Tyne, except with the prior written consent of the relevant local planning authorities and the Environment Agency.

The River Tyne Management Plan shall provide for:

9.2.1 Monitoring of water quality (oxygen levels, turbidity, temperature, salinity and current speed) before, during and after construction and dredging.

9.2.2 Monitoring of fish stocks prior to, during and after construction in the River Tyne including:

- surveillance immediately upstream and downstream of the works during their operational phase;
- Fish tagging and monitoring;
- Fish trapping;
- Review of angling catches/log books; and
- Using declared net catches for salmon and trout.

9.2.3 Measures for control of dredging activity in the River Tyne to minimise impacts on the river bed habitat, loss of ethnic fauna and flora, reduction in water quality, the increase in sedimentation and re-suspension of sediments and potential disturbance to birds, including use of a sealed grab during dredging of surface strata comprising of silt and clay or such other type of dredging machinery or methodology as will have an effect on water quality that is not materially greater than the use of a sealed grab.

9.2.4 Use of a backhoe dredger for all soils and weak rocks and a cutter suction dredger for rock and all soils except alluvial silts and clays, or such other type of dredging machinery or methodology as will affect water quality no more than that assumed in the Environmental Statement.

10. HANDLING AND DISPOSAL OF SPOIL AND WASTE

10.1 Objectives

So that the works are carried out in such a way that, as far as is reasonably practicable the amount of spoil and waste to be disposed of is minimised and that any waste arising from the site is properly categorised and dealt with in accordance with the appropriate legislation.

The TWPTA will be required to apply, so far as is reasonably practicable, the Hierarchy of Sustainability set out at paragraph 10.3 below to ensure that the maximum beneficial use is made of the surplus spoil and waste materials generated by the works.

10.2 General Arrangements for Storage and Disposal.

Prior to the commencement of any excavations comprising part of the works a Spoil and Waste Management Plan shall be submitted to and approved in writing by the relevant local planning authorities [and the Environment Agency]. The approved Spoil and Waste Management Plan shall be implemented in carrying out the Works, expect with the prior written consent of the relevant local planning authority [and the Environment Agency].

10.3 The Spoil and Waste Management plan will apply to the hierarchy below in selecting the use or destination of spoil or waste arising during construction of the Works.

Hierarchy of Sustainability

- On-site use (including opportunities immediately adjacent to the project)
- On-site process (recycle) and use
- Offsite use/existing recycling facility
- Offsite dedicated recycling facility
- Existing landfill
- Sea disposal

10.4 Contaminated Wastes

The Spoil and Waste Management Plan shall:

(i) set out measures to prevent the contamination of surface watercourses and groundwater during excavation works

(ii) A scheme for identifying potential emissions of methane gas and monitoring any such emission, including the testing for methane and other hazardous gases by a specialist practitioner.

11. LANDSCAPE AND ECOLOGY

11.1 Objectives

To ensure that the Works are carried out so that, as far as reasonable practicable, disturbance to the landscape is contained within defined limits and site restoration proposals are implemented in a timely manner and in accordance with best practice.

11.2 Control Measures

Prior to the commencement of each phase of the development a Landscape and Ecology Management Plan shall be submitted to and approved in writing by the relevant local planning authority. The approved Landscape and Ecology Management Plan shall be implemented in carrying out the works except with the prior written consent of the relevant local planning authority.

The Landscape and Ecology Management Plan shall include the elements set out below.

11.2.1 Protected Sites

- A summary of all known areas of nature conservation interest potentially affected, including a site plan at an appropriate scale indicating the construction sites and working areas and access routes etc.;
- Protective measures to prevent encroachment, other than that required for monitoring purposes, into adjoining areas of nature conservation interest whether by air, land or water;
- A programme and procedures for watching briefs and monitoring, prior to and during construction, through to completion of restoration of the construction sties and working areas;
- Procedures to be adopted in the event of a pollution control emergency on or near a designated nature conservation site; and
- Wildlife habitats to be disturbed by construction work should be surveyed by a qualified ecologist prior to commencement of each phase of the Development. The ecologist will be invited to make recommendations on mitigation measures and restoration work to ensure that the site is of an equivalent or richer ecological status after work ceases.

11.2.2 Protected Species

- A programme for validating previous ecological surveys prior to commencement of development;
- A programme and procedures for watching briefs and monitoring, prior to and during construction, through to completion of restoration of the construction sites and working areas;
- Procedures for the relocation of certain species, as required by any licensing requirements in place at the time;

- Procedures to be adopted in the event of unanticipated discovery or disturbance of protected species, important habitats or geological features of high scientific value;

- Procedures for the control of plants listed in Schedule 9 of the Wildlife and Countryside Act 1981 or other relevant statutory provisions, to the satisfaction of English Nature; and

- Procedures for the appropriate recording and rescue work of geological deposits of high scientific value.

11.2.3 Protection of Trees

Prior to any work commencing on site a full tree survey to establish exact location, age, type and condition of all trees shall be undertaken by an arboricultural specialist. This will be submitted to the relevant local planning authorities and form the basis of an agreement on site working, or as subsequently agreed on site.

Any essential remedial or protective work to trees adjacent to construction activity will be carried out by suitably trained or qualified personnel using recognised methods in accordance with BS 5837 "Guide for Trees in Relation to Construction".

Adverse effects on trees within or in the vicinity of work sites will be minimised by the adoption of suitable mitigation measures, including, but not limited to the following:

- Agreement of the most appropriate positions for working equipment and site storage facilities so that the risk of damage to trees is kept to an absolute minimum. Protective measures such as tying back, erection of suitable temporary protection and/or adoption of alternative working methods shall be implemented;

- Any trees showing signs of stress during progress of works will require appropriate treatment to aid recovery at the time rather than waiting until completion of the scheme, as a first option. Tree felling and general tree work to be in accordance with BS3998: 1989 and 1990.

- Any essential remedial or protective work to trees adjacent to construction activity will be carried out by suitably trained or qualified personnel using recognised methods in accordance with BS 5837 "Guide for Trees in Relation to Construction".

- Suitable measures will be adopted to avoid ground contamination/ compaction in the vicinity of trees occurring during the development, not including the use of matting around root zones to prevent compaction.

- Trunk damage shall be prevented whenever possible using appropriate measures in accordance with BS 5837:1991 *"Trees in relation to Construction"*.

11.2.4 Tree Replacement

Whilst every reasonable attempt will be made to preserve all mature trees, any tree that is cut down or dies as a consequence of the construction shall be replaced by a suitably sized transplant determined by the local authorities in an agreed location. Any site for new planting will be thoroughly prepared prior to planting. Aftercare including irrigation will be implemented in accordance with good horticultural and arboricultural standards for suitable periods. Any tree that dies within five years will be replaced with a suitable new tree.

APPENDIX B

Responses to Objectors

OBJ103
John Broderick, 8, Beechwood, High Spen, Rowlands Gill, Tyne and Wear NE39 2BL

Issue:	Description :	Response:
Marine Ecology and Water Quality (Statement of Case)	Mr. Broderick considers that the dredging process will disturb stable alluvial deposits and expose the local aquatic environment to a variety of chemical hazards. He notes that further assessment is proposed to consider construction noise effects. He also notes that the majority of pollution issues have been investigated in isolation but does not believe the synergistic effects on migratory salmonids have been fully considered. Mr Broderick also points to apparent inconsistencies in EA dissolved oxygen guidelines and monitoring criteria and considers that both absolute and	To assess water quality impacts it is necessary to consider the contaminants (such as trace metals and organic substances) individually to compare them against the Environmental Quality Standards (EQSs) – as described in the ES Section 12.3.3.2. Potential synergistic toxicity of all contaminants in the sediments have been assessed by undertaking bioassay ecotoxicity tests which are described in Section 12.4.6.3 of the ES and Appendix 12.1 Annex D of the ES. These tests were based on mortality of indicator organisms and was shown to be insignificant in 31 of 35 samples (acute toxicity) and 34 of 35 samples (chronic toxicity). Any synergistic effects which do occur would be avoided by the timing of the dredging works. The principal dredging window will occur from November to March thus avoiding the main salmonid migration time. This will be enforced by contract conditions and the Code of Construction Practice which the concessionaire will be obliged to adopt. Assuming an absolute worst case of dredging and salmon migration coinciding, any synergistic effects of low DO and presence of elevated levels of chemical contaminants from disturbed sediments would be linked to the sediment plume arising from the dredging works. Modelling shows that the worst case scenario for the sediment plume is at slack water (lasting about 15 minutes) and affects an area immediately around the dredger of some 30m by 10m. (ES Section 12.5.1) This is a very short term and localised occurrence and it is reasonable to assume that any salmonids in the river at the time would

	relative limits should be in place during monitoring of dredging activities. Mr. Broderick finally notes that the dredging contractor will be required to employ techniques to minimise deleterious effects of sediment resuspension. He indicates that no specific criteria have been laid down in this regard and is concerned that during tendering environmental concerns will be overlooked if best practice criteria are not laid down in advance.	choose the unaffected section of the river as their migration route. There are apparent inconsistencies between EA guidelines and monitoring criteria. The EA provided us with DO guidelines for the ES based on those developed previously for the Conwy immersed tube tunnel. The EA have separately required that monitoring be based on DO differentials rather than DO limits. (ES Section 12.7.2) We are currently in discussion with the EA on the details of the monitoring requirements should the project proceed. With regard to the control over the dredging process, this is a matter which is covered by the Code of Construction Practice (draft appended to Proof of Evidence of Dr. Paul Johnson) to which the TWPTA, concessionaire and dredging contractor will be bound. The Code will require the production of a River Tyne Management Plan which amongst other matters will require measures for the control of dredging activity to be agreed with the local planning authorities and the Environment Agency prior to the commencement of any works in the river.
Marine Ecology and Water Quality (Letter of Objection)	Concern is expressed over the risk of toxic silt deposition on the Tyne Estuary SSSI during construction. Mr. Broderick considers that the impact on the Tyne's salmonid populations has been understated and believes that suspended sediments	The potential impacts on the designated sites at the mouth of the Tyne have been fully detailed in Section 13.5 of the Environmental Statement. The nearest point of these sites to the proposed new crossing is some 5km distant. The construction methodology will be designed to minimise re-suspension of sediments into the river. Modelling of suspended solids indicates that with appropriate mitigation measures in place, no significant amounts of disturbed sediment would be transported down to the Tyne entrance. The mean depth of sedimentation within the SSSI's and Northumbria Coast SPA is predicted to be approximately 0.001mm. (ES Section 13.5.4.2) This will have no impact on the ecology of the Tyne.

	and associated high levels of organochlorides, heavy metals and TBT acting with a reduction in dissolved oxygen could cause a much greater impact than any of these stressors would alone.	Dissolved oxygen levels in the river are generally lowest during summer months at periods of low flow. (ES Section 12.5.3) Dredging works, incorporating mitigating measures to minimise re-suspension of silt will be limited to the winter months when dissolved oxygen levels are generally at their highest. (ES Sections 12.6 and 14.6). The synergistic effects of all contaminants in the water column of the Tyne were assessed by ecotoxicity tests (ES Section 12.4.6.3) which were designed and agreed in advance with the Environment Agency. The tests were performed on a sensitive indicator crustacean species using samples of silt taken from the crossing location. The results of the tests showed that the combined effects of contaminants did not have a significant effect on the indicator species. Similarly, the implication is that for fish and fisheries (which are less sensitive than the indicator test species) there would be no significant effect.

OBJ382
Tyne Crossings Alliance, c/0 Paul Winch, Cornerstone House, 81 North Drive, Hebburn, Tyne & Wear NE31 1EW

Issue:	Description :	Response:
	Amongst a wide range of objections, the Alliance refer to objections regarding the disturbance of pollutants by dredging and the possibility of harmful cumulative effects.	The potential impacts on the Tyne have been fully detailed in Section 13 of the Environmental Statement and in Paul Johnson's Proof of evidence. The construction methodology will be designed to minimise re-suspension of sediments into the river. Some minor adverse effects are noted in the ES as occurring during dredging, but these are of minor significance because they will affect a small area of the river which is not designated and most of the impacts will be temporary in duration. Modelling of suspended solids (ES Section 12.5.1) indicates that with appropriate mitigation measures in place, no significant amounts of disturbed sediment would be released into the river and there would be no adverse effects on the ecology or fisheries of the Tyne.

		Dissolved oxygen levels in the river are generally lowest during summer months at periods of low flow (ES Section 12.5.3). Dredging works, incorporating mitigating measures to minimise re-suspension of silt will be limited to the winter months when dissolved oxygen levels are generally at their highest (ES Sections 12.6 and 14.6). The synergistic effects of all contaminants in the water column of the Tyne were assessed by ecotoxicity tests (ES Section 12.4.6.3) which were designed and agreed in advance with the Environment Agency. The tests were performed on a sensitive indicator crustacean species using samples of silt taken from the crossing location. The results of the tests showed that the combined effects of contaminants did not have a significant effect on the indicator species. Similarly, the implication is that for fish and fisheries (which are less sensitive than the indicator test species) there would be no significant effect.

OBJ384
St. Paul's Area Residents Association, c/o 101, St Paul's Road, Jarrow, Tyne and Wear NE32 3AS

Issue:	Description :	Response:
	The Association makes several objections including the consideration that the ES and NTS are inconsistent and include errors, and that the environmental consequences outweigh the	The ES and NTS have been produced following an extensive programme of consultation, detailed survey and analysis of the impacts of the proposal (Section 3 of Paul Johnson's Proof of Evidence). The documents are in accordance with the relevant regulations and provide an appropriate level of assessment of impacts during construction and operation of the new crossing. The purpose of the public inquiry is to examine these environmental issues in the context of

	arguments that there is a need for the Tunnel.	the arguments advanced concerning the need for the new crossing. The ES indicates that the environmental effects during construction and operation can be mitigated to satisfactory levels. The adoption of the comprehensive Code of Construction Practice (Section 10 and Appendix to Paul Johnson's Proof of Evidence) is designed to ensure that appropriate environmental controls will be adopted by the concessionaire.

OBJ429
CPRE, 57, Olympia Gardens, Morpeth, Northumberland NE61 1JQ

Issue:	Description :	Response:
	The CPRE raise several objections including concern that the construction of the tunnel will have major impacts on marine and estuarine ecology.	The ES (Section 13) and Paul Johnson's Proof of Evidence (Section 5) deal fully with the potential effect of the construction of the new crossing on marine and estuarine ecology including the nationally and internationally designated sites at the river Tyne entrance. The conclusions drawn are that the construction works will have an insignificant effect on marine or estuarine ecology. It should be noted that English Nature's holding objection which covered this point, has now been withdrawn

OBJ502
Environment Agency, Rivers House, 21 Park Square South, Leeds LS1 2QG

Issue:	Description :	Response:
	The Agency have submitted a holding objection pending further discussions with the TWPTA. The concerns expressed by the Agency covered a number of points	Full details of the potential effect of the proposed works on water quality, fish and fisheries were presented in the ES (Sections 12 and 14). Since that time extensive discussions have been held with the Agency to consider the findings of the ES and agree a programme of precautionary mitigation and monitoring works.

	including the potential adverse effect of the proposed works on fisheries and water quality in the Tyne.	The TWPTA and the Agency are close to agreement on the nature of the programme and the funding mechanism. The programme of works will include improvements to existing fish monitoring infrastructure, and implementation of in situ river water quality monitoring as well as fish tracking and monitoring.
	Response to issues raised in the EA Statement of Case, submitted on 30 October 2002	Prior to, and since submission by the EA if their Statement of Case (SoC) strenuous efforts have been made, in meetings and by supply of supplementary information, to satisfy their concerns. This has led to the recent issue by the EA of draft Protective Provisions and a side (legal) Agreement, which is still under discussion. The particular concerns, set down in Section 3 of the SoC, have been or are being addressed in the following way: • **Flood Defence** – Meetings and correspondence between Andrew Kirby (Arup) and Richard Robinson (EA) in October and November 2002 concluded that the EA had "no further concerns about flood risks due to permanent or temporary works" associated with the project. • **Fisheries** – a comprehensive programme of monitoring migratory salmonids has been agreed and is being implemented. Over £100,000 has already been spent to upgrade the fish trap at Riding Mill, a Smolt Trap is to be installed, the PTA has agreed to fund the costs of the EA employing two staff for 7-8 years to undertake much of the monitoring (these have now been recruited and have started work) and a contract to employ CEFAS to undertake tracking of smolts and adult fish, over a period of 4 years is being negotiated. In addition, it has been agreed that the dredging of the main immersion trench for the tunnel is restricted to the winter period from 1 November to 31 March in any year, when oxygen levels in the river are highest and there are very few migrating fish. In addition, four water quality monitoring buoys, to measure dissolved oxygen and turbidity (suspended solids) will shortly be installed, upstream and downstream of the works site. Continuous monitoring of background levels of DO and turbidity will then commence,

		on the basis of which, criteria will be agreed with the EA to ensure that dredging works do not continue if the dredging causes water quality to deteriorate to unacceptable levels. Other precautionary mitigation measures have been agreed to improve the 'robustness' of the fishery. These would be delivered through a 'Rivers Trust' to be established by the Tyne Riparian Owners and Occupiers Association (TROOA), in consultation with the EA, and funded by the PTA, to provide for: i. Upgrading the fish pass at Hexham; ii. Increasing the fish stocks at Kielder Hatchery to provide for supplementary restocking; iii. In-river habitat (spawning ground) improvements • **Pollution (discharges)** – the Concessionaire will be obliged to obtain discharge consents from the EA, under normal procedures, for any discharge of effluent from construction activities. • **Waste Management/Contaminated Land** – significant additional works has been undertaken to consider the issue of spoil management and disposal, both to sea and land, as set down in the Proof of Evidence by my colleague, Ian Lofthouse. Regular consultation has taken place with the EA (Jim Scott) and Defra throughout this work, who have expressed their satisfaction with the approach. The Management of Contaminated Land and Waste Disposal aspects for which the Concessionaire will be obliged, through the Code of Construction Practice, to prepare and implement approved Environmental Management Plans

OBJ600
Friends of the Earth, 74 Kirkgate, Leeds, West Yorkshire LS2 7DJ

Issue:	Description :	Response:
	Friends of the Earth have registered an objection which covers a wide range of issues. Amongst these are objections on the grounds of potential impact on nature conservation sites in the vicinity of the proposed new crossing. Objections were transmitted to the Environment Agency and English Nature on the perceived inadequacy of the ES and impact of the proposals in relation to marine spoil disposal.	The ES covers in some detail the potential effect of the new crossing on sites of nature conservation interest. These comprise the sites of local and county level interest in the vicinity of the landward sections of the crossing (ES Section 15) and also the coastal and marine sites of interest with national and international designations located at their nearest point some 5km distant at the mouth of the river Tyne (ES Section 13). The crossing itself does not directly affect any designated nature conservation site. The ES (Section 13.5 and Section 15.5) and Paul Johnson's Proof of Evidence (Sections 5 and 7) indicate that provided the stated mitigation measures are incorporated, the potential effect on sites of conservation interest is of minor or no significance. The adoption of the Code of Construction Practice described in the ES (Section 21) and in Paul Johnson's Proof of Evidence (Section 10 and Appendix) is designed to ensure that appropriate mitigation is incorporated during construction works to protect sites of nature conservation interest. Issues relating to disposal of spoil are dealt with in the Proof of Evidence of Ian Lofthouse. English Nature had lodged a holding objection (OBJ 601) to the proposals but this has since been withdrawn.