
Reference No.: 09/04661/LAP Development by City (Regulation 3)

Proposal: Erection of new highway bridge, with two columns of maximum height of 190m and 140m respectively, and associated highway infrastructure, connecting Wessington Way in Castletown and European Way in Pallion, with associated landscaping and engineering works, together with a temporary bridge to facilitate bridge construction; Stopping-Up of highways, change of use of land and inclusion of additional land as new highway and highway infrastructure at and in proximity to Hylton Riverside, Hylton Park Road, Timber Beach Road, Wessington Way and European Way and Crown Works and Groves/Coles Site, Sunderland.

Location: Land At, Wessington Way, Timber Beach Road, Hylton Park Road, European Way And Groves Coles Site, Sunderland.

Wards: Castle and Pallion
Applicant: City Services
Date Valid: 22 December 2009
Target Date: 23 March 2010

Location Plan

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PROPOSAL:

The development comprises a new bridge over the River Wear between Pallion and Castletown, together with new and improved highway connections to the bridge from the wider highway network. It is proposed that construction would begin in 2012 with the bridge operational in 2015. The overall scheme comprises Phase 2 of the Sunderland Strategic Transport Corridor, which seeks to improve links between the A19, the City Centre, The Port and the Southern Radial Route. The SSTC is a key facet of proposals to regenerate the City and provide a high quality road network over the period 2012 - 2021. The aim is to provide improved facilities for vehicular (private and freight) cycle and pedestrian movement.

The new bridge is proposed to cross the River Wear to the west of the existing Queen Alexandra Bridge, linking Sunderland Enterprise Park (off Wessington Way) on the north bank with the former Groves Coles site at Pallion on the south bank. The bridge consists of two independent curving steel towers the smaller one being no higher than 140m and the taller one no higher than 190m. The main feature of the bridge, which is unique amongst cable-stayed bridges, is that the stays support the deck from one side of each mast only. The end spans of the bridge are supported on inclined piers at each end. The north and south abutments are expected to be earth embankments, with a piled foundation supporting the bridge bearing. The suspended deck will span 336m to the abutments and deck supports, which will be located out of water on either bank. The 24.5m wide deck will consist of pedestrian and cycle access on one side, two 7.3m wide carriageways and another 2m wide pedestrian walkway on the other side. The deck surface is some 16 - 20m above the River Wear. Lighting of the roads, and cycle/footpath is proposed by low-level recessed luminaries, with feature lighting to illuminate the mast facades.

It is proposed that a temporary bridge, from the south bank to the centre of the river, be constructed to enable construction of the central foundations and masts within the riverbed.

Six highway linkages are proposed to the bridge, all incorporating pedestrian, and cycle and vehicle access:

- i) New Wear Crossing Northern Approach - connecting Wessington Way to the new bridge incorporating improvements to Wessington Way, including the conversion of the at grade 4 arm roundabout to a four way signalised junction.
- ii) Orange link - a secondary route on the north bank of the River Wear proposed to pass under the Northern Approach to connect Timber Beach Road to Hylton Park Road, essentially a re-alignment of the existing highway, providing improvements for motorists and pedestrians alike.
- iii) New Wear Crossing Southern Approach link - connecting the new bridge to Woodbine Terrace on the southern bank of the River Wear.
- iv) The Blue Link - a secondary route connecting European Way to the new Southern Approach link, passing under the existing Metro bridge.
- v) The Yellow Link - a secondary route connecting the Southern Approach to the existing riverside, and the development area to the west of the new bridge.
- vi) Woodbine Terrace - connects the Southern approach to European Way, providing access to Ditchburn Terrace and is proposed to improve the vertical alignment of the existing highway with new retaining walls to either side.

Site Description

The development site extends to some 16.6 hectares (41.02 acres) straddling the River Wear between Pallion and Castletown. It is predominantly industrial and retail in nature, with large warehousing type sheds and extensive car parking and highways. The area is also interspersed with areas of open space and woodland particularly on the north bank. There the area known as Timber Beach falls within the site, this is a nature conservation site of local importance. It comprises a complex area of meadows, scrub, riverbank and plantation woodland, which offers feeding grounds for seasonal migrating birds.

There are existing road links to the A1231 (Wessington Way) and from there to the A19 and beyond on the north bank, while to the south European Way and Pallion Road (B1405) link with Durham Road A690 and the City Centre and The Port

The application is supported by a wide range of documents including:

- Environmental Impact Assessment (EIA) in 5 volumes + appendices
- Planning Statement
- Design and Access Statement
- Statement of Community Involvement
- Flood Risk Assessments
- Construction Report
- Contaminated Land Desk Based Assessment
- Concept Report
- Archaeological Monitoring Report
- CPO Report
- Site Waste Management Framework
- Sustainable Transport Assessment
- Construction Traffic Assessment
- Transport Impact Assessment (+ Appendices)
- Arboricultural Report
- Lighting Assessment
- Construction Report (Highways)
- Drainage Impact and Utilities

Additional reports have been submitted subsequently in respect of:

- Bats (further survey report)
- Ecological Mitigation Delivery Plan

Members may be aware that the scheme is the subject of a Planning Performance Agreement (PPA). A PPA is a framework agreed between the local planning authority and a planning applicant for the management of complex development proposals within the planning process. It allows the two parties to agree a project plan and programme which includes the appropriate resources to determine the planning application to a firm timetable. This approach puts more emphasis on the quality of the decision and the outcomes than its speed and forms part of the government's push towards a "Development Management" approach to planning. In this instance nine consultees, including the Environment Agency and Natural England, have also signed up to the agreement, which envisages that a decision will be made on the scheme by 31st May, unless it is called in by the Secretary of State for his determination.

TYPE OF PUBLICITY:

Press Notice Advertised
Site Notice Posted
Neighbour Notifications

CONSULTEES:

CABE
Natural England
English Heritage
National Grid Transco
Durham County Council
Sport England
Fire Prevention Officer
British Telecommunications
The Coal Authority
Sustrans
Northumbria Police (Sunderland Area Command)
ARC
Northumbrian Water
Environment Agency
The Highways Agency
County Archaeologist
Durham Bat Group
Ministry of Defence Safeguarding
Civil Aviation Authority
City Services (Environmental Services)
City Services- Parks and Open Space
City Services – Transportation
Durham Wildlife Trust
Northern Electric
UK Gas Business
NATS (National Air Traffic Control Service) Safeguarding Officer
Nexus
One North East
Force Planning And Police Architectural Liaison Officer
Port Manager
The Royal Society For The Protection Of Birds
Wear Rivers Trust
Newcastle International Airport
Sunderland Civic Society
North East Planning Body

Final Date for Receipt of Representations: **31.01.2010**

REPRESENTATIONS:

Neighbours

Two letters of support have been received emphasising the attractiveness of the design of the bridge and its improvement of transport links and the regenerative effect for employment in the area.

In addition letters of concern have been received from a number of land owners/occupiers affected by the alignment of the proposed bridge and the associated highway works either directly or indirectly as riparian landowners. These concerns can be summarised as follows:

O & H Properties – object to the proposal but support the principle of a new bridge in this location. It is claimed that the application information gives totally inadequate attention to the detail of the siting or design of the associated access roads. There are five main areas of concern:

1) Inadequate consultation and engagement with stakeholders

Express concern that the consultation to date and the majority of the literature produced has concentrated on the bridge at the expense of the supporting road infrastructure. The failure to engage with the company on this regionally important scheme is seen as a significant failure.

2) Insufficient detail and ambiguity

Consider that there are inconsistencies in the submitted documentation, which does not give confidence that the issues have been sufficiently thought through for a full application.

- a) All drawings appear to be given equal weight (no indication which are simply supporting drawings)
- b) Levels, gradients and associated engineering operations are not adequately addressed with regard to the context of the future redevelopment of the adjacent Groves site.
- c) The Design and Access statement refers to the northern/Yellow link providing access to Ditchburn Terrace, but that street will be able to be accessed direct from Woodbine Terrace.
- d) The Planning Statement does not indicate whether changes to the railway bridge are required to accommodate the western Blue link on route to the connection with European Way.
- e) Phasing proposals in the Planning Statement do not appear to take account of the existing commercial operations on the Groves site nor to the maintenance of access to those businesses after the works are complete.

3) The Western Blue Link and Yellow Link

Consider that the highway links are not justified in policy or transport terms and could prejudice the comprehensive redevelopment of the Groves site as required by policy SA6A.1 of UDP Alteration No. 2. It is not clear whether the Transport Assessment tested an option with only one access on to European Way at Woodbine Terrace.

The construction of the roads without consideration of the development of adjacent sites could mean viable businesses being lost without a clear redevelopment and relocation programme.

4) The loss of the former Groves Playing fields

These are not mentioned in the planning documentation, so their status is not clear as they are identified on the UDP Proposals Map, but Sport England have no objections to their loss.

5) Contrary to Policy SA6A.1

The comprehensive redevelopment of the Groves site is key to Sunderland's housing and employment objectives, yet this policy which should be given significant weight is not addressed in any detail in the Planning Statement. The statement that the scheme supports the policy is not justified in the Planning Statement. The company is concerned that the proposals could result in severance of the site, prejudicing future development through the provision of the additional roads in the application. It is suggested that the yellow and blue links be removed or only progressed once the routes of those roads have been fully assessed within the context of comprehensive master plan for the Groves site working with O&H. It highlights the implications for the CPO process and the need for the two applications to be considered together.

It concludes that the submitted proposals are not robust enough in design terms to give the required flexibility for the future development of the Groves site, and could sterilise parts of the site contrary to the stated intention of bringing redevelopment forward, without the prior development of a master plan for the area.

Bedburn Estate, Croxdale Estate, Harbour House Farm, Lambton Estate and Trustees of the Lumley 1988 settlement (submitted by Gray's Chartered Surveyors) – object to the construction of the bridge because:

- 1) Insufficient attention has been given to the impacts on migratory fish, which will be the most significantly affected species.
- 2) The construction works and the creation of salt marsh will significantly impact on the passage of migratory fish.
- 3) Despite the use of soft start procedures, piling operations over prolonged periods will deter fish moving up the river.
- 4) The works will disturb silt putting more into solution in the river and while a silt curtain will reduce the impact they will also create an obstruction to migratory fish.
- 5) The central caisson, with an area of 0.096 ha will be a significant physical obstruction to fish.
- 6) The extent of scour protection is currently unknown but will require salt marsh provision elsewhere, works which will also disturb migratory fish.
- 7) The Wear Rivers Trust, riparian owners and the Environment Agency should be involved in the development of the detailed mitigation method statement.
- 8) The method statement needs to clarify restrictions on the timing of working to minimise impacts on migratory fish.
- 9) Land based species are noted on the summary mitigation table but not fish.
- 10) Concern that the disturbance of Japanese Knotweed could lead to its further spread up and down stream with cost implications to other riparian owners in future.
- 11) The affects of the scheme on the rights of riparian owners and migratory fish in years to come have not been addressed. It is considered that a monitoring system should be introduced a number of years in advance of the works and for at least 10 years after construction to provide a detailed picture of the impacts.
- 12) Consider that the possibility of a catch (downstream) and release (upstream) of large numbers of migratory fish during the construction

period to ensure large numbers pass the area of works should be investigated.

- 13) The method statement should address grounds for compensation in advance of the project commencing to cover damages likely to be experienced by riparian owners (as was the case for the Tyne Tunnel project).
- 14) Reconsideration should be given to the use of a clear span design for the bridge.
- 15) Requested details of any consultation undertaken with the riparian owners of fishing rights on the River Wear

Matalan – objects to the proposal on the following grounds:

1 – Considers that the access road to the new bridge will take land away from its premises which could have an adverse impact on Pallion Retail Park undermining the aims of UDP Alteration no. 2 policy SA6B.3 which seeks to secure a better mix of uses and higher quality of development and environment as part of a strategic location for change.

2 – The proposal will introduce a higher level of traffic into the mixed industrial /housing area of Pallion with adverse impacts on environment and safety.

3 – Despite the fact that land within its ownership is required by the scheme there has been no pre-application discussion on the submission and considers the application is premature.

W Anderson (Dental Surgery) – objects to the proposal on the following grounds:

1 – The proposal contradicts existing UDP policies EC2 & 6 which identify the area of the north landing of the bridge as an area for new sources of employment to achieve the council's economic development aims. The proposal will remove business from the area.

2 – Considers that the bridge will increase traffic at the A19 /A1231 junction which may not have the capacity to accommodate it.

3 – Considers that the construction of the new bridge will have significant adverse impacts on views over the Green Belt in the vicinity of the A19/A1231 junction contrary to the aims of UDP policy NA30.

4 – Considers the proposal potentially could have significant adverse impacts upon the nearby Site of Nature Conservation Interest and Site of Special Scientific Importance contrary to the aims of UDP policies CN21 and CN23.

5 - Despite the fact that land within its ownership is required by the scheme, there has been no pre-application discussion on the submission and considers the application is premature.

Sunderland Enterprise Park – objects to the proposal on the following grounds:

1 - The proposal contradicts existing UDP policies EC2 & 6 which identify the area of the north landing of the bridge as an area for new sources of employment to achieve the council's economic development aims. The proposal will remove business from the area.

2 – Considers that the bridge will increase traffic at the A19 /A1231 junction which may not have the capacity to accommodate it.

3 – Considers that the construction of the new bridge will have significant adverse impacts on views over the Green Belt in the vicinity of the A19/A1231 junction contrary to the aims of UDP policy NA30.

4 – Considers the proposal potentially could have significant adverse impacts upon the nearby Site of Nature Conservation Interest and Site of Special Scientific Importance contrary to the aims of UDP policies CN21 and CN23.

5 - Despite the fact that land within its ownership is required by the scheme there has been no pre-application discussion on the submission and considers the application is premature.

Springs Leisure – do not object to the overall principle of the new bridge but do express a number of detailed concerns:

- a) Lack of direct consultation to establish their needs as one of the most affected parties. The Statement of Community Involvement does not indicate whether there was direct contact with affected parties on the precise details of the proposals in line with advice in PPS1 and PPG13.
- b) Loss of direct access to their premises off Wessington Way – claim this is harming attempts to sell the premises as it will require longer journeys to reach the premises particularly when approaching from the east. There is no evidence that such considerations were taken into account in designing the submitted scheme and that in this respect it is contrary to the advice at para 23 of PPS ‘Delivering Sustainable Development’ that local planning authorities should ensure that infrastructure and services are provided to support new and existing economic development and housing.
- c) Lack of consideration of the impacts of the proposals on such neighbouring uses – claim that there does not appear to have been any assessment of the impacts of the specific junction alterations on neighbouring land uses or how significant such impacts could be. It is claimed that as a result of the specific junction design, access to the jobs and services on the Springs Leisure Club site and adjacent premises is reduced and connections eroded. The scheme therefore is viewed as not being integrated into the existing urban form and results in the separation of communities through cutting off existing movement paths.
- d) No evidence of alternative access arrangements or junction options have been considered – there are doubts as to whether options have been considered and rejected or that no alternative options were considered. Evidence of other options considered is therefore requested.

Springs Leisure request answers to the queries raised and a meeting with the applicant.

Statutory Consultees

Civil Aviation Authority - has no objections, but requires navigation warning lights on structures taller than 150m.

Coal Authority - has no objections but has indicated that surface coal deposits should not be sterilised by development, the stability of the structure should be ensured given the history of mine workings in the area. A reminder has also

been provided about the Authority's standing advice and the need for its consent should any old coal workings need to be examined.

Durham County Council - has no objections.

English Heritage – has no objections as the additional assessment of the visual impact has allayed its concerns. Initially while welcoming the coverage of the impacts on the historic environment in the ES, believed that further analysis of the potential impact on the setting of the candidate World Heritage Site at St Peters Bishopwearmouth was required, as well as viewpoint analysis in the ES.

Environment Agency – Has no objections to the scheme but proposes that five conditions be imposed to meet the Agency's requirements in respect of the following four main issues.

a) Flood risk - it accepts that the main bridge is above any anticipated floodwater height, but it notes that the proposed "Yellow Link" would be inundated by a tidal event (with climate change). It suggests that although such a risk is low, it should be taken into account by the emergency planning officer.

b) Contaminated Land - the Agency recommends that further investigation is undertaken at the site to fully investigate and determine the significance of all pollutant linkages identified in the conceptual Model and the risks to controlled waters from contamination across the full extent of the site. Accordingly it recommends the imposition of three conditions to cover the assessment, remediation and validation of such works.

c) Marine Conservation, Biodiversity and Proposed Mitigation Strategy - following the submission of the Ecological Mitigation Delivery Plan the Agency has indicated that the significant issues had been identified and outline mitigation proposed. It did however recognise that further detailed work was required to ensure that mitigation was satisfactory and therefore proposed two conditions to mitigate the adverse impacts on migratory fish and oxygen levels in the river and the provision and management of compensatory habitats including saltmarsh and mudflats.

d) Recreation - it notes that previous advice in respect of linkages for pedestrians, cyclists and public transport have been taken on board and facilities for those users included within the bridge design to improve linkages for residents in the north of the city to education, commercial and leisure facilities to the south of the River Wear.

Highways Agency - has indicated that it has no objections to the proposal indicating that the impacts of the bridge on strategic junctions will be minimal. It does however indicate that the impacts may increase with the development of nearby regeneration sites, which need to be assessed when the relevant planning applications are submitted.

Ministry of Defence Safeguarding - has no objections

NATS (National Air Traffic Control Service). - has no objections and has indicated that the scheme does not conflict with its safeguarding criteria.

Natural England – has no objections to the scheme provided that conditions are imposed on any consent to ensure that the proposed ecological mitigation measures are implemented. Natural England is generally satisfied with the proposed approach set out in the Ecological Mitigation Delivery Plan and recognises that detailed landscape proposals need to be developed and a

number of mitigation options remain to be finalised and the ability to physically accommodate the mitigation on the ground remains to be fully demonstrated. Thus it recommends that a condition be attached to any consent to cover the detailed landscape scheme, the incorporation of the ecological mitigation measures, their management and monitoring. It emphasises that this should cover those mitigation measures both within and outside the application site boundary. It further recommends that the mitigation measures should be agreed with the council's own ecologist.

Initially, it had concerns about the potential impact of the scheme on habitats and species. It considered that additional information was required to demonstrate that the scheme would not have a significant impact upon protected species, particularly bats. It reminds the authority that it has responsibility under section 40(1) of the Natural Environment and Rural Communities Act 2006; Regulation 3(4) of the Conservation (Natural Habitats &c.) Regulations 1994; and section 74 of the Countryside & Rights of Way Act 2000 to ensure that the potential impact of development on species and habitats of principal importance is addressed. Its specific comments were divided into five distinct sections.

- 1) Landscape, Access and Recreation – advised that the scheme may impact upon landscape character and considers the scheme should be assessed against the requirements of PPS1 key principle (iv) as the scheme would be a highly visible feature in the landscape/townscape. NE did not however consider that it would have an unacceptable adverse impact on either the Durham Heritage coast or Hadrian's Wall Path National Trail which fall within the Zone of Theoretical Visibility because of the distance and intervening landscape / townscape.
- 2) Statutory Designated Sites – it advises that the site lies adjacent to the Durham Coast Site of Special Scientific Interest (SSSI)/Special ~Area of Conservation (SAC) and Northumbrian Coast Special Protection Area (SPA) and could potentially impact upon birds moving between the latter and the North Pennine Moors SPA to the west. It concludes however that the scheme would be unlikely to have a significant adverse impact on any SPA or SAC under "the Habitats Regulations" 1994, or any SSSI under the Rights of way Act 2000. Consequently, it raises no objections under those legislative controls.
- 3) Protected Species –
 - i) Badgers - it requested sight of the confidential report before making any comments on this aspect.
 - ii) Great Crested Newts – suggests that a condition be imposed on any consent requiring a presence/absence survey of the species in pond 2 in the season immediately prior to works commencing and the development of any necessary mitigation arising from the results therefrom.
 - iii) Otters – requests clarification of the findings of the extended survey and the submission of a detailed method statement of precautionary means of working in respect of otters including, if signs of otters are discovered, after works have commenced. It requests a condition requiring that works be undertaken in accordance with the working strategy be imposed on any consent issued.
 - iv) Bats – it expresses disappointment that no emergence surveys had been undertaken relying only on visual inspection of the

buildings to be demolished. It concludes that the level of information is insufficient to provide a reliable assessment of likely bat use of the buildings, even though the surveys concluded that the risk was generally negligible/low and in a few instance low/medium. NE advises that further survey work is undertaken prior to the granting of planning permission to allow an informed assessment of likely bat use of the buildings and the development of an appropriate mitigation strategy. Without such surveys the proposal could not be seen as complying with the requirements of ODPM Circular 06/2005.

- v) Breeding Birds – NE expresses disappointment that only 3 visits were made during the 2007 breeding bird season. It noted that those surveys and the surveys in 2004 failed to identify any Wildlife and Countryside Act Schedule 1 birds breeding within the study area and only low numbers of other notable species with lesser black backed gulls breeding on the roof of the Groves Crane Plant in numbers. It suggests that opportunities to incorporate alternative nesting areas / platforms into the scheme design and that the views of local specialists be given due consideration in the determination of the application. It raises no objections to this element of the scheme provided that a condition requiring a further checking survey for active nests immediately in advance of the clearance/demolition works.
 - vi) Wintering Birds - NE raises no objections to the conclusion that no significant impact would be caused to such birds by the scheme at any stage but that the views of any local specialist in this area be given consideration in the application's determination.
 - vii) Japanese Knotweed – this is a Schedule 9 species and subject to section 14 of the Wildlife and Countryside Act 1981 (offence to plant or cause to grow). NE recommends that a condition be imposed on any consent granted for the survey, removal and control of the knotweed to be agreed via a method statement.
- 4) Estuarine Environment – NE advises that details of the detailed mitigation and scour protection be provided prior to determination and that a condition requiring the monitoring of protected and unprotected areas of the river bed and banks for as long as required may be required to be imposed on any consent. It recommends that the Environment Agency be consulted on any proposed dredging and its impacts prior to determination of the application. It advises that the impacts upon the Timber Beach SNCI and the elevations of suspended matter in the river are unclear and that further information/clarification be sought.
- 5) Sites of Nature Conservation Interest and BAP Habitats – it notes that within the SNCI areas of saltmarsh, reedbed and lowland meadow will be adversely affected by the works in the river. Further, areas of unimproved neutral grassland and grassland with a calcareous influence outside of the SNCI will be lost. NE advises that the local authority needs to consider whether the proposed mitigation strategy adequately mitigates/compensates for loss of important habitats both within and outside of the SNCI. It advises that in determining the application appropriate weighting should be given to both local and national policy and guidance and consultation responses and if it is satisfied that the proposed

mitigation is adequate, that this is secured by means of appropriate condition(s).

Newcastle International Airport - has no objections but has indicated that the western (tallest) mast would require a single red flashing aviation warning light.

Non- Statutory Consultees

BT Openreach - a meeting has been held with the organisation at which it was agreed that their services could be diverted across the bridge. No objections to the scheme

County Archaeologist - has no objections but has proposed seven conditions, which should be imposed on any consent issued. Those conditions are in respect of the further archaeological works which would be required and the reporting thereof, should consent be granted.

Cyclists Touring Club - queries why there is a cycle lane on only one side of the bridge while there are pedestrian footways on both sides and requests that this element of the design be reconsidered.

Durham Bat Group- has indicated that it supports the scheme but has raised concerns in respect of the perceived inadequacy of the bat emergence surveys undertaken, resulting in suggested impacts which are not well informed and thereby leaving the council vulnerable to prosecution should bats or a roost be damaged during the construction phase. It is suggested that further survey work be undertaken before the application is determined and appropriate mitigation/remediation measures be then incorporated into the scheme. The group has re-iterated its concerns following consideration of the supplementary Bat report setting out the evidence from subsequent surveys in 2010.

Durham Wildlife Trust – following consideration of the Ecological Mitigation Delivery Plan has no objections to the proposal. However, initially it emphasised the ecological importance of the habitats in the Timber Beach SNCI and that the ES indicates that during construction and subsequently through shading effects the habitats and plant species could be destroyed particularly as the shading effects on the plant species are unknown. Significant mitigation measures are required to ensure that the habitat is protected and or expanded through replacement on nearby sites. Mitigation plan needs to ensure that the council can meet its own policies and those within PPS 9 _Biodiversity and Geological Conservation.

Executive Director of City Services - Environmental Health – does not object to the scheme but has commented on eight aspects of the scheme and suggested a number of conditions be imposed on any consent granted.

1) Construction noise - advises that the noise from construction activities should not exceed the pre-construction ambient noise by 5dB or more with values adjusted dependent upon time of day. An assessment is required to be made in advance and mitigation measures proposed.

2) Construction Traffic - suggests a condition requiring submission of construction Traffic Management Strategy including routes and delivery times.

3) Operational road traffic noise - notes that 21 properties in the vicinity of Northern way are estimated to be affected by road noise on opening of the

Bridge in 2014, which would reduce to 6 by 2029. Consequently, a condition is proposed that a further noise assessment be undertaken on completion of the scheme and mitigation measures to address any significant adverse effects on properties in the area.

4) Air Quality - suggests that further air quality monitoring is required for at least one year prior to works commencing to get a better understanding of pollutant concentrations in areas around certain receptors. The monitoring should continue throughout construction and for at least one year after completion. Mitigation measures will be needed to be proposed should the NO₂ AQ objective be breached at the two identified receptor locations.

5) Dust from demolition and construction - it is accepted that the scheme will not generate significant levels of dust due to the limited extent of demolition but requests that measures be put in place for the reasonable prevention of dust generation and or suppression by means such as dampening down.

6) Vibration from construction activities - the need to avoid residential properties experiencing such problems and the potential need for monitoring is highlighted.

7) Lighting - refers to the lighting assessment submitted with the application and proposes a condition to ensure that the development will not cause a statutory light nuisance.

8) Contaminated Land - notes that the proposal site has previously accommodated industrial activity and the need to determine the extent and type of any contamination, which may have resulted there from. It is noted that of the 288 potential pollutant linkages identified in the EIA 112 are considered to present a moderate to high risk. Consequently, conditions are suggested to develop the Conceptual Site model through a Phase II investigation and revised assessment of the potential pollutant linkages together with a remediation strategy, and in due course an implementation plan and verification report. It is also advised that conditions be imposed requiring the submission of an hydro-geological risk assessment for the proposed works, an options appraisal, mitigation strategy and implementation plan.

Nexus - has no objections, but has made some detailed comments particularly about the need to ensure that: pedestrian access to the Metro station at Pallion and track access points should not be obstructed at any time; and the potential positioning of bus stops.

North East Planning Body - does not raise any objections to the proposal but clarifies that in respect of 6 main policy areas, the proposal conforms with or contributes to the aims of a number of policies in the Regional Spatial strategy (RSS).

Location - the scheme reflects the locational strategy and the sequential approach and the achievement of iconic development projects along the River Wear (policies 4, 6 and 9) and by improving access to brownfield mixed use development sites (policy 13).

Design - advises the council to ensure that design and layout will contribute to the achievement of sustainable communities and thereby accord with policies (8 and 24).

Biodiversity - advises that provided that Natural England and the council are satisfied that the proposed mitigation of effects on the Timber Beach SNCI satisfactorily minimise the adverse impacts on the ecology and wildlife of the area then the scheme will be consistent with policy 33.

Archaeology - advises that the council should be satisfied that suitable mitigation measures are put in place to ensure that adequate measures are in place to

record or preserve any archaeological remains on the site in order to conform to policy 32.

Flood Risk - that the council and the environment agency should be satisfied that the sequential risk based approach has been followed to ensure conformity with policy 35.

Transport - advises that the provision of pedestrian and cycle facilities within the scheme and the possible adaption of the layout to incorporate street trams ensures conformity with policies 7 and 24. It recognises that by the improvement of public transport access to potential brown field development sites the scheme will contribute to the aims of policy 55. Further it advises that the council should be satisfied that the traffic resulting from the development can be accommodated on the wider road network to ensure conformity with policy 7.

Northumbrian Water - raises no objections but advises that protection and or diversion of its assets in the area require further investigation and therefore proposes two conditions to protect those assets in both the long term and during construction.

One North East (ONE) - is fully supportive of the proposal. It advises that it owns a small area of land subject to the Compulsory Purchase Order. ONE has contributed funding to the project enabling works, design and feasibility studies and also approved in principle funding towards the landmark design. It recognises the scheme could generate significant economic benefits through its prominence and, through its enhancement of the gateway to the city, and by contributing to the regeneration of the area, not only through the improvement of access and egress for the development of key project sites (Vaux Brewery, Farringdon Row, Holmeside and Sunnyside) and longer term redevelopment sites (Groves), but also through the potential tourism benefits of the bridge. It considers that the scheme will make a significant contribution to the economic regeneration of this part of the Tyne and Wear area.

Sport England - does not object to the proposal, but understands that part of the site was once playing fields containing two pitches and a bowling green (within the former Coles Cranes site). These facilities have been out of use for over five years and therefore cannot trigger a statutory consultation with Sport England. It advises the Council to consider the potential demand that these facilities could serve if they were bought back into use in relation to the findings in the Playing Pitch Strategy. If they look like they could serve demand, they should be safeguarded or reprovided to an alternative site. Provided that the Council considers the above as part of the assessment, Sport England would have no objection to this application.

Sunderland Arc – welcomes and strongly supports the proposal, as it will advance the SSTC, which is a key infrastructure component of its business strategy and the RSS, which will deliver an iconic new bridge across the River Wear with long-term sustainable transport benefits. It considers that the scheme will raise the profile of the city and the region significantly, while generating economic, social and environmental benefits for the area and help secure the effective regeneration of key sites within the Sunderland Arc's portfolio. The support is qualified by the need to resolve the outstanding issues in respect of the habitat impact and replacement and integration with the future redevelopment of the Groves site.

It considers that the scheme, which is a “Priority One Project” in its business plan, will help to attract people to the City, will draw investors to the Groves site and other regeneration sites at Deptford, Vaux Brewery, Farringdon Row and Holmeside. Further, it considers that the scheme will greatly assist the movement of freight between central Sunderland and the trunk road network. In the arc’s view this is consistent with the aims of the new PPS4 ‘Planning for Sustainable Economic Growth’ as well as numerous RSS policies.

The Arc recognises that the scheme is in accord with a number of policies within UDP Alteration No.2 and draws particular attention to policy SA6A.1 which seeks the comprehensive redevelopment of the former Groves site, which is fundamental to the economic and housing regeneration aspirations for Central Sunderland. The integration of the SSTC/New Bridge with that redevelopment is viewed as being of paramount importance. In this context it supports the current dialogue between the project team and the owners of the site and looks forward to further future progress.

It is confident that the ecological mitigation delivery plan will be capable of overcoming the initial concerns of the statutory consultees with respect to the potential ecological impacts of the scheme.

Sustrans - does not support the proposal. It questions the benefit of the proposed scheme in its view which appears to be another case of more roads for more cars which will ultimately lead to more traffic problems and congestion in the city centre, leading to further environmental damage (air quality, noise pollution and carbon emissions). The encouragement of car use increases health problems (obesity, cancer etc) and thereby would be contrary to the Department for Transport's "Delivering a Sustainable Transport System". It claims that the scheme does not do anything to encourage people to use sustainable modes of transport. It considers that the reported cost of £130m could be better spent on encouraging more sustainable transport options.

Wear Rivers Trust - notes that the scheme will use technical advice from the Environment Agency to alleviate any foreseen problems, but that the Agency is often wrong as evidenced by the effects of the Tees Barrage. The main concern is the impact upon migratory fish and the lack of contingency measures in the event of failure of the proposed mitigation measures. The Trust is concerned that if the low water levels coincide with a dry period and work on the bridge project, then migratory fish could be seriously affected. It considers that the monitoring of river oxygen levels should be undertaken by an independent water biologist rather than the engineering contractor. It queries the advisability of work in the river in November given the large number of recorded fish movements at that time. It requests that habitat enhancement works to the Wear catchment be included within the mitigation strategy to counter any unforeseen problems.

POLICIES:

The following national policies , plus Development Plan policies from the Regional Spatial Strategy and the Unitary Development are of relevance to the consideration of this application.

PPS1 - Delivering Sustainable Communities

PPS4 - Planning for Sustainable Economic Growth

PPS5 - Planning for the Historic Environment
PPS9 - Biodiversity and Geological Conservation
PPG13 - Transport
PPS23 - Planning and Pollution Control
PPS24 - Planning and noise
PPS25 - Planning and Flood Risk

Policies of the Regional Spatial Strategy for the North East:

Policy 1 - North East Renaissance
Policy 2 - Sustainable Development
Policy 3 - Climate Change
Policy 4 - Sequential Approach to Development
Policy 7 - Connectivity and Accessibility
Policy 8 - Protecting and Enhancing the Environment
Policy 9 - Tyne and Wear City Region
Policy 12 - Sustainable Economic Development
Policy 16 - Culture and Tourism
Policy 32 - Historic Environment
Policy 33 – Bio-diversity and Geo-diversity
Policy 34 - The Aquatic and Marine Environment
Policy 35 - Flood risk
Policy 36 - Trees and Woodlands
Policy 37 - Air Quality
Policy 38 - Sustainable Construction
Policy 49 - Regional Transport Corridors
Policy 55- Accessibility within and between the City Regions.

Alteration No. 2 to the Sunderland Unitary Development Plan:

EC5A - Comprehensive Development sites
EC5B - Strategic Locations for Change
EC10A - Regeneration of Central Sunderland
H5A - Housing Allocations in Central Sunderland
SA6A.1 - Former Grove site
SA6B.3 - Pallion Retail Park
SA52A - New Routes
T1A - New Transport Investment

In the Unitary Development Plan the site is subject to the following policies:

R_1_Working towards environmentally sustainable development
R_4_Incorporation of energy saving measures
B_2_Scale, massing layout and setting of new developments
EC_1_General Support for economic development proposals and initiatives
EC_2_Supply of land and premises for economic development purposes
EC_4_Retention and improvement of existing business and industrial land
EC_5_Sites for mixed uses
S_2_Encouraging proposals which will enhance / regenerate defined existing centres.
L_1_General provision of recreational and leisure facilities
L_12_Promotion of the recreational and tourist potential of the coast and riverside

SA_1_Retention and improvement of existing employment site
 SA_50_Implementation of new roads / road improvements
 SA_52_Safeguarding of land corridors for roads and associated works
 T_1_Promote the development of a varied, balanced, integrated & sustainable transport system
 T_2_Promote the role of public transport, improving quality, attractiveness and range
 T_4_Maintain and improve a comprehensive network of bus routes
 T_8_The needs of pedestrians will be given a high priority throughout the city.
 T_9_Specific provision will be made for cyclists on existing/new roads and off road
 T_10_Protect footpaths; identify new ones & adapt some as multi-user routes
 T_13_Criteria influencing proposals for highways improvements including new road construction.
 T_14_Accessibility of new developments, need to avoid congestion and safety problems arising
 T_18_Design of street furniture and landscaping associated with highways schemes
 T_20_Manage the highways system by regulation and physical improvement.
 T_25_Support improvements to the national highway and rail network
 T_26_Assist operation of the Port by enhanced access and control of development
 NA_30_Protection and enhancement of important views
 NA_32_Designation of Local Nature Reserves
 EN_12_Conflicts between new development and flood risk / water resources
 EN_1_Improvement of the Environment
 EN_5_Protecting sensitive areas from noise/vibration generating developments
 EN_15_Promoting / encouraging the reclamation of derelict land for appropriate uses
 EN_14_Development on unstable or contaminated land or land at risk from landfill/mine gas
 SA_38_Protection and enhancement of important views of the City
 CN_13_Protection and enhancement of important views
 CN_16_Retention and enhancement of existing woodlands, tree belts and hedgerows
 CN_18_Promotion of nature conservation (general)
 CN_21_Developments affecting designated / proposed LNR's, SNCI's or RIGS
 CN_22_Developments affecting protected wildlife species and habitats
 CN_23_Measures to conserve/ improve wildlife corridors
 B_3_Protection of public/ private open space (urban green space)
 B_11_Measures to protect the archaeological heritage of Sunderland (general)
 B_13_Sites and monuments of local importance affected by development
 B_14_Development in areas of potential archaeological importance

COMMENTS:

It is considered that in determining this application the following main issues need to be considered:

Principle of the development
 Design of the bridge structure and associated linkages
 Impact on ecology of the area, including terrestrial, fluvial and marine environments

Visual impact of the proposal
Highway implications of the proposal
Contaminated land issues
Flood Risk Issues
Impact on the Historic Environment
Sustainability
Health Issues
Consultation Procedures
Regeneration Issues
Aviation Issues
Playing field Issues
Other issues

The Principle of the Development

The need for an additional road bridge over the River Wear was identified in the adopted UDP and a route was identified on the approved plan (Policy SA50.2), albeit in a different location to the submitted scheme. The policies within it which support its provision include the following:

T13 which indicates that highway improvements including new road construction will only be permitted where they fulfil one of a number of criteria including:

- the improvement of the strategic route network and the encouragement of its use in preference to other less suitable roads;
- the improvement of the environment and safety in areas currently adversely affected by heavy traffic flows;
- the facilitation of movement of industrial traffic and assisting the development/redevelopment of existing and proposed industrial and commercial areas;
- the improvement of facilities for pedestrians and cyclists and the disabled.
- The supporting text identifies the New Wear Bridge as one of four major highway scheme to improve the strategic network.

SA50 further strengthens the aims of T13 by the inclusion of the schemes within the list of priority highway projects in the south area of the city.

The application proposal forms only a part of the overall Sunderland Strategic Transport Corridor (SSTC), which amongst other things seeks to improve access to the Port area as sought by policy T26 of the UDP. In addition the improved linkages with the national road network, in the form of the A19(T) sought by policy T25 will be provided by the SSTC of which this application is a critical part.

T1 includes the promotion of a balanced integrated and sustainable transport system, which by encouraging the use of a wide range of modes of transport, meets the accessibility needs of the community and stimulates economic development and regeneration. It is considered that the scheme will help to open up the potential regeneration sites adjacent to the River Wear, particularly along the south bank and through the provision of a dedicated footpath, cycleway and vehicular dual carriageway, and thereby meet those policy aims.

UDP Alteration No.2 continues the theme through policy T1A which seeks to maximise accessibility in Central Sunderland, relating the provision of transport

facilities to the pattern of land use. A number of priorities for transport investment are also identified, including the SSTC and the river crossing.

Policy SA52A identifies the route of the SSTC, including the bridge, which follows the route proposed in this application. It states that land for the construction of the SSTC, river crossing and associated works will be safeguarded and requires the new river crossing to achieve a design of exceptional quality.

It is considered that these are the main policies of the UDP and Alteration No.2 which have direct relevance to the provision of the SSTC and the new River Wear crossing and, as will be demonstrated later in this report, many other policies indirectly support the provision of the route and the benefits it is envisaged to bring to the city.

The local policies set out in the UDP and Alteration No.2 are supported also by policies within the North East of England Plan Regional Spatial Strategy to 2021 (July 2008). Of direct relevance are:

Policy 7: Connectivity and Accessibility - which seeks to improve and enhance the sustainable internal and external connectivity and accessibility of the North East by improving accessibility and efficient movement and maximising the potential of international gateways of ports and airports and strategic infrastructure in supporting regional economic growth and regeneration.

Policy 9: Tyne and Wear City - supports the development and redevelopment of the sub region giving priority inter alia to the regeneration of the River Wear corridor and the promotion of its connectivity through the development of a further crossing of the River Wear and improving connections along the river in Sunderland.

Nationally, PPG13 Transport promotes: more sustainable transport choices for both people and freight; accessibility to jobs, shopping, leisure facilities and services by modes other than the car and thereby reducing reliance upon the car. Through the provision of improved links from the north of the City to the City centre and the regeneration sites along the south bank of the River Wear by foot cycle and car and the potential for revised and or additional public transport routes, the bridge and associated road works will contribute towards those aims.

In summary therefore, it is considered that the provision of the SSTC and New Wear Bridge and the associated transport links are in accord with the national and regional policies in the form of PPG13, and RSS policies 7 and 8 and locally with UDP policies SA50, T1 and T13 and the subsequent Alteration no. 2 policies T1A and SA52A. The principle of the scheme therefore is considered to be acceptable.

Design of the Bridge Structure and Associated Linkages

These issues need to be considered against the requirements of UDP policies B2 and T14. Policy B2 seeks to ensure a high quality of design which compliments or enhances the best characteristics of the area in which the development is located; while policy T14 seeks to ensure that any development affecting the public highway does not have any adverse implications on highway safety and facilitates the free movement of traffic (vehicular, cycle and pedestrian).

The Bridge

The overall design and appearance of the bridge is proposed as a symbol for Sunderland's regeneration aspirations and provides an architectural feature with which the community can identify. It seeks to: create a landmark design; improve connectivity between the A19 and central Sunderland the Port and the Southern Radial Route; and provide opportunities for the use of sustainable and safe transport choices. The unique feature of the bridge is the two independent curving steel masts with stays supporting the deck from one side of each mast only. This creates a substantial bending moment in the mast and large deflections at the top. This necessitates a heavier form of mast than for a traditional cable stayed bridge of a similar size. The masts comprise four different structural sections:

1. At the very bottom between the top of the foundation concrete (-3.0 metres) and just below the mean MLWS level (-1.88 metres) the section will be of a fully pre-stressed concrete design.
2. From the MLWS up to the 3rd highest stay anchorage the section is a composite construction with a steel outer shell (12mm) and an inner pre-stressed concrete core - required to counter the large eccentric loading imposed by the stays.
3. Above part 2, the section reverts to a full steel structure to maximise the internal working space.
4. At the top of each mast is a steel finial structure.

The height of the taller mast will not exceed 190 metres while the shorter tower will have a maximum height of 140 metres.

The end spans of the bridge are supported on inclined piers at each end with the north and south abutments being in the form of earth embankments with a piled foundation supporting the bridge bearing. The suspended deck will span 336 metres to the abutments and deck supports, which will be located out of water on either bank. The 24.5 metre wide deck provides pedestrian and cycle access on the west side, two 7.3 m wide carriageways and another 2 metre wide pedestrian walkway on the east side.

At the detailed design stage the scheme's aesthetics were re-assessed, including the overall bridge height, which was subsequently increased to provide a more elegant structure in the submitted scheme.

The elegant structure will be visible over a wide area and will be a genuinely striking gateway into Central Sunderland. It is likely to be an attraction in itself as the tallest bridge in the country, providing the city with an impressive landmark. The design of the bridge will enhance the area through its imposing height but through its slender form will not be overly dominant on adjacent users.

The Wear Rivers Trust and the agent for a number of the riparian owners has suggested that a clear span design should be used to avoid the impacts on the fluvial and tidal environment. While those concerns are appreciated the discussions with the Environment Agency and Natural England have indicated that while there will be some impacts on the river channel and migratory fish, these are not sufficient to warrant a refusal of the proposal. The works within the river cover a small area unlike those in the River Tyne with which comparison has been made and the main dredging operations will not be undertaken in open water. The imposition of the proposed conditions should ensure that the harm to

the interests of the riparian owners is kept to a minimum. Consequently, it is not considered that the limited impact envisaged is sufficient to warrant the design of the bridge being revisited. Further the delay and possible loss of government funding as a consequence which would result from such a redesign would put the whole project in doubt to the detriment of the highway network in the city.

The design of the bridge is therefore considered to accord with the requirements of policy B2.

The Associated Highway Linkages

It is considered that the design of the 5 linkages to the new Bridge have been developed so as to provide safe and convenient access for all and thereby improving linkages within the city. The Blue and Yellow links in particular have been designed so as to ensure as far as practicable that the area of land remaining for future economic and /or housing development is maximised. The use of cuttings and embankments for the western arm of the Blue Link will ensure that that element of the scheme does not intrude unduly into the landscape of the River Wear valley which would not have been the case had it been proposed away from the edge of the existing upper plateau embankment which would have required the use of substantial supporting structures (which would have also raised costs substantially). As indicated below, in the section on the highway implications of the scheme, it is considered that the submitted highway linkages at each end of the new bridge has resulted from due consideration of the access needs of existing users allied to the need to ensure continued safety for all road/highway users. Additional details particularly of the Blue route in the form of long sections and chainage cross sections have been provided to further clarify the proposals.

It is accepted that the revised Design and Access Statement indicates erroneously that the Yellow Link provides access to Ditchburn Terrace. Access to that street will still be available direct from Woodbine Terrace. However, it may be that in future the land currently accessed from Ditchburn Terrace could be accessed via an eastward leg off the yellow link, but this will need to be considered as apart of the comprehensive redevelopment of the Groves site and adjacent land.

Discussions are continuing with O & H to examine whether there is a more appropriate alignment of the Blue Link western link road and in particular whether it can be designed so as to function as a street with development on both sides, such an approach may have benefits in urban design terms within the site, but has adverse effects (costs) if it results in the rear of development overlooking the River Wear valley. At present on balance it is considered that the design of the highway linkages are satisfactory and accord with the requirements of policies B2 and T14 of the adopted UDP.

It is considered therefore that the design of the scheme as a whole is satisfactory and accords with the requirements of policies B2 and T14 of the adopted UDP.

Impact on Ecology of the Area,

The SSTC and New Wear crossing raise a number of detailed issues in relation to the impact on ecology, in terms of both species and habitats. The biodiversity

issues raised by the scheme have been fully assessed in accordance with the duties imposed on local planning authorities by section 40(1) of the Natural Environment and Rural Communities Act 2006; Regulation 3(4) of the Conservation (Natural Habitats &c) Regulations 1994 and Section 74 of the Countryside and Rights of Way Act 2000 in order to ensure that the potential impacts of development on species and habitats of principal importance are addressed. Although pre-dating some of these statutory requirements policy CN22 of the adopted UDP seeks to ensure that development does not have significant adverse effects on the overall biodiversity of the city.

Terrestrial environments and species

- 1) *Landscape, Access and Recreation* – Key Principle (iv) of PPS1 Delivering Sustainable Development advises that “design which does not take the opportunities available for improving the character and quality of an area should not be accepted.” In addition policy CN13 of the adopted UDP seeks to protect and enhance important public views of townscape and landscape, while policy CN14 seeks to ensure that landscaping schemes and new development prominent from main transport routes enhance the image of the city. The submitted proposal does not adversely affect any protected landscape. The Durham Heritage Coast and Hadrian’s Wall Path National Trail fall within the identified Zone of Theoretical Visibility within the Landscape Visual Impact Assessment. Natural England has confirmed that because those features are some distance away from the application site, it is unlikely that any unacceptable adverse impact will arise.

As indicated above the design of the bridge is such that it will be a highly visibly feature in the landscape/townscape, given that one of the aims of the scheme is to produce a modern landmark to signify the renaissance of the city. It is considered that in the context of the requirements of PPS1 the scheme does enhance the character and quality of the area. Indeed the scheme has the potential to act as a catalyst for further improvement to the quality of the area by improving access for the future redevelopment of industrial sites along the southern banks of the River Wear.

The scheme will result in the removal of 334 trees, 12 of which are in poor condition, as well as some minor crown lifting and works to other trees. However the proposed landscaping scheme includes a tree replacement-planting scheme on the basis of 2 for 1. This will help to soften the impact of the scheme and particularly that of the associated highway linkages in the medium to long term, as well as providing future habitat for birds and bats and other species.

It is considered that on balance the scheme complies with the requirements of PPS1 and UDP policies CN13 and CN14 in terms of the potential for the achievement of an improvement to the quality of the landscape and townscape of the area.

- 2) *Statutory Designated Sites* – the proposal lies adjacent to the Durham Coast Site of Special Scientific Interest (SSSI) / Special Area of Conservation (SAC) and Northumbria Coast Special Protection Area (SPA) and has the potential to impact upon birds moving between the latter site and the north Pennine Moors SPA to the west. The adopted UDP also seeks to protect such designated sites through policies CN18 to CN20.

Natural England has confirmed that it has no objections to the scheme in respect of the potential impact on these designated sites. It considers that either alone or in combination with other plans and projects the proposals would be unlikely to have any significant impacts or cause damage to those designated areas.

Consequently it is considered that the scheme would not contravene either the Habitats Regulations or s281 of the Wildlife and Countryside Act 1981 as incorporated by the Countryside and Rights of Way Act 2000 and is consequently acceptable in respect of those issues.

- 3) *Protected Species* – Policy CN22 of the adopted UDP seeks to ensure that development proposals do not have significant impacts on protected species or their habitats or that appropriate mitigation is undertaken. Government advice on the impact of development on species protected under the Habitats Regulations 1994 is set out in circular 06/2005. This states that

“The presence of a protected species is a material consideration when a planning authority is considering a development proposal that, if carried out, would be likely to result in harm to the species or its habitat.”

And:

“It is essential that the presence or otherwise of protected species and the extent to which they may be affected by the proposed development is established before the planning permission is granted, otherwise all relevant material considerations may not have been addressed in making the decision”

- a) *Badger* – the submitted EIA indicates that there were no active setts or evidence of badger activity on the development site or its immediate surrounds. However, it was recognised that the site does support potential habitats for new sett construction and/or foraging habitat. The Ecological Mitigation Delivery Plan (EMDP) indicates that a further badger survey be undertaken at least two months in advance of works commencing to avoid any potential impacts. This approach has been endorsed by Natural England
- b) *Great Crested Newts* – the submitted EIA indicated that there were no great crested newts present in any of the five water bodies within 500m of the proposed development, surveyed for the assessment. Two were found to have low potential for the species; two were dried out on surveys in 2007 and 2009 while the final pond (pond 2) was also dry in 2009. However the EIA recommends that a presence/ absence survey be undertaken in the survey season immediately prior to the works commencing. The results of that survey would determine the need for and form of any mitigation measures. The findings and recommendation were endorsed by Natural England. Consequently, it is considered to be appropriate to impose a condition to that effect on any consent issued for the development.
- c) *Otter* – the submitted EIA indicated that surveys had identified the presence of otters in and around the application site, but that no nests had been found. The EMDP indicates that a pre start survey will be undertaken at least 3 months before works start. In the event that otter resting places are found, mitigation measures will be discussed with Natural England. If significant disturbance will result even with mitigation further monitoring will be

undertaken to facilitate a Natural England Mitigation Licence for works affecting a European Protected species. Natural England has indicated that as otters are a flexible/adaptable species the proposed measures in the EMDP, which include the provision of an otter holt / resting place within the Timber Beach SNCI in support of the work of the Durham Biodiversity Action Plan: Rivers and Otters Project for the River Wear, are acceptable.

- d) *Bats*- Natural England, Durham Wildlife Trust and the Durham Bat Group all raised concerns at the initial EIA assessment in respect of the adequacy of the bat surveys undertaken for the initial EIA. Subsequently, further detailed interior inspection survey work of the buildings affected by the development has been undertaken. The results of the surveys resulted in little change to the original assessment and resulted in the downgrading of the risk in some instances from low/medium to low/negligible risk of bat presence. It was determined that the lack of suitable linkages between the buildings or buildings and foraging areas, allied to the limited sightings on the activity surveys resulted in the conclusion that there was unlikely to be any adverse impact on the species as a result of the demolition of buildings or removal of trees from the application site.

Despite the further survey work, Durham Bat Group has maintained its concerns. It considers that the time of the additional surveys allows for no assessment of breeding activity, particularly of *Pipistrelle* bats, the only species likely to be present in the area. It accepts that the risks are low but considers them far from negligible and that consequently breeding season field data is required to put the risks into perspective. It remains of the view that the assessment of the roost potential of the buildings is artificially low.

In the light of this view further advice was sought from Natural England. It has indicated that while it appreciates the concerns of the Bat Group, activity surveys were undertaken in August 2009, which indicated only low levels of bat activity in the survey area. Although emergence surveys were not undertaken as part of this assessment, given the thorough nature of the internal and external assessments, the low level of recorded bat activity and the limited value of commuting and foraging habitat in the area of the buildings to be demolished, Natural England is satisfied with the report's conclusion that bats are likely to be absent. Durham Bat Group themselves acknowledge that the risk of bat use is low.

The BCT Bat Survey Good Practice Guidelines state that following visual inspections, dusk emergence, dawn re-entry or automated surveys may be required when:

'A comprehensive internal inspection survey is not possible because of restricted access but the building or built structure has features that have a reasonable likelihood of supporting bats' and

'inspection surveys have not ruled out the reasonable likelihood of a roost being present'.

In this instance, the above are not considered applicable. As such, and as the overall assessment has indicated only a negligible / low risk of the buildings containing a bat roost, Natural England do not consider that it would be justifiable to insist on emergence surveys being undertaken (ODPM Circular 06/2005 is clear in stating that surveys should only be requested

when there is a reasonable risk of the species being present and affected by the development).

The submitted addendum report in respect of Bats recommends checking surveys be undertaken before the works commence and that further survey work be undertaken prior to demolition of the three buildings with a low-medium bat roosting potential, with further emergence surveys where necessary. Demolition will need to be undertaken slowly by hand during spring or autumn. In the event that bats are found the project ecologist will need to be consulted and a Natural England licence obtained to undertake the works the application for which will include appropriate mitigation measures. The potential provision of bat boxes within the scheme received a mixed response from consultees and is proposed to be given further consideration at the detailed design stage.

On balance it is considered that the submitted scheme presents a low to negligible risk to bats and that the measures proposed both in the bat addendum report (Entec March 2010) and the EMDP should ensure that there is no significant impact upon the species. It is considered that the scheme and mitigation measures proposed therefore follows the advice in circular 06/2005 and meets the requirements of the Habitats Regulations.

- e) *Breeding Birds* – the survey work undertaken for the EIA indicated that species numbers recorded were low. Natural England expressed some disappointment that the number of visits during the breeding season was low and that no surveys were undertaken in the 2008 and 2009 breeding seasons. However it accepted that the earlier surveys had not identified any Wildlife and Countryside Act Schedule 1 species and only low numbers of other notable species. It did note that lesser black backed gulls were breeding on the roofs of the Groves Crane plant buildings in regionally important numbers and that opportunities to incorporate alternative nesting areas within the scheme might be considered. Natural England has accepted that other nesting places were available nearby in Sunderland. It did however indicate that it had no objection subject to the mitigation measures proposed in the EMDP being implemented, particularly the carrying out of demolition and vegetation clearance outside the bird breeding season unless a checking survey indicates that no active nests are present.

Consequently, it is considered that with the imposition of an appropriate condition to ensure the implementation of the EMDP measures the scheme is unlikely to have any adverse impacts on breeding birds and thereby will comply with the requirements of the Habitats Regulations.

- f) *Wintering birds* – The surveys undertaken for the EIA concluded that the impact on such species during the pre-construction, construction and operational stages of the development would be of a low / negligible magnitude and not significant. No objections were raised to these findings by Natural England or the Durham Wildlife Trust. The EMDP does not make any specific recommendations for mitigation of impacts on such species, relying on those for breeding birds. It is considered that those mitigation measures will be sufficient to ensure no significant impacts on over-wintering species.
- g) *Japanese Knotweed* – this species is listed in schedule 9 and subject to section 14 of the Wildlife and Countryside Act 1981, which make it an offence

to plant or cause the species to grow in the wild. Any soil contaminated by the species is likely to be classed as controlled waste under the Environmental Protection Act 1990 requiring it either to be burnt on site or disposed of at sites licensed by the Environment Agency. The surveys undertaken for the EIA recorded the presence of knotweed within the site on both banks of the River Wear. Natural England advises that the control of the species is important to ensure no negative effect upon local biodiversity. The EMDP identifies a number of means of dealing with the occurrences of Japanese Knotweed but recommends that the appointed contractor should choose a preferred method and that this should be clearly set out in a method of working statement. This accords with advice from Natural England and will ensure that the spread of the species is avoided and allay the concerns of the riparian owners as expressed in their agent's representations.

- 4) *Estuarine Environment* – The placing of a structure within the river bed will result in changes to the river bed and river flows both in space and time and both directly and indirectly. The effects are likely to differ with the different phases of the project. Direct effects are associated with the construction operation and decommissioning activities at the bridge site and may be more immediate, whereas indirect effects may be harder to define and change with time. The physical footprint of the new central pier (0.096 ha) will directly affect the river bed within that area, whereas more indirect effects will be its influence on changing flow conditions and the form of the river channel over time through changed rates of erosion and deposition. Longer-term changes to the river channel may also have significant consequences on ecological and human receptors as areas of mudflat or saltmarsh may become eroded and exposed or smothered through deposition and coastal protection and or river/walls may become damaged if they are exposed to faster and stronger flows.

The key potential physical changes resulting from the development are:

- Loss of riverbed – two large towers will be placed on a caisson or piled foundation within the centre of the river with direct loss of the river bed over the footprint area and the placement of any protective armouring. This will result in a direct loss of habitat while changes to the river bed brought about through changes to flow and sediment transport can result in indirect effects;
- Sediment disturbance – construction, operation and decommissioning activities are likely to disturb sediment on the river bed directly, particularly as a result of piling and dredging. Indirect effects may result if the bridge piers cause changes to current flow and direction. When disturbed the sediment may be released in to the river flow if the channel flow is sufficient, resulting in short term sediment flumes or a change in longer-term sediment transportation and deposition. Sediment flumes can impact upon the quality of the water environment and can damage important ecological receptors e.g. migratory fish.
- Scour effects – although usually localised in area, these can have far reaching consequences. Placing a structure in the river is likely to increase the local current velocities with flows around it deflected downwards with the creation of vortices, which can cause erosion or “scouring” effects at the base of the structure. The

extent of the scour depends upon the shape and size of the structure, the type of sediment at the river bed and the local velocity of flow. The stronger the flows the further the sediment will be transported. Scour can cause short-term effects on water quality (locally and over a wide area) and longer-term effects through damage to ecological receptors and potential damage or destabilisation of the pier, support structures and river defence infrastructure.

- Changes to current speed and /or direction – the placing of structures on, within or beneath the river bed can change current hydrodynamic processes by changing the flow path. It can both increase and decrease current speeds and change current direction, which in turn change erosion and deposition processes in the river/estuary. The resulting new balance of erosion and deposition may cause damage to the river bank and associated ecological receptors as well as physical infrastructure.

The Environmental Impact Assessment (EIA) identifies that the construction of the central support for the bridge will result in scour and erosion of the river bed. Initial indications from modelling work are that this could go to depths of in excess of 9m dependent upon the combination of tides and water flows, the composition of the river bed material and design of the central supporting structure. The potential impact of scour and erosion has been raised by the riparian owners and the Wear Rivers Trust, as well as the Environment Agency in its initial response prior to the submission of the EMDP.

The findings of the EIA may be summarised as follows.

i) Temporary works - the preferred temporary bridge (jetty) option is identified as having the least impact in terms of scour with a design recommendation of 4.8m around the cofferdam and 0.6m and 1.2 m around the jetty piers and bridge deck guidance piers respectively under tidal conditions. It is likely that the deepest scour will occur around the temporary structures, which are located in the deepest parts of the river. The impact of the permanent structure on the scour associated with the temporary structures on their removal is uncertain, but they may infill at least partially as the permanent works offer less restriction to the flow. As the temporary works are proposed to be built out from the southern bank of the river on the inside of the channel bend the area is likely to be one of increased deposition of sediment due to the lower flows.

ii) Permanent works – some of the scenarios examined indicate large scour depths however there is some uncertainty as to the erosive behaviour of the sediment properties at the exact pier location and depth and are likely to represent a worst case scenario. An average scour depth of 4.5m is advised for design purposes for the main bridge towers (based on an estimated range of 2.2 to 5.8m). Under an extreme flow this value will be exceeded, but more detailed modelling would be needed to provide a better estimate of the likely effects

At subsequent meetings with the interested parties the issues of scour have been raised, but not put forward as a reason for objection by the statutory consultees. There appears to be acceptance that further studies of the river bed material, through further borehole samples, are required together with more detailed design of the in river works in order to provide a thorough

assessment of the impact. It is therefore considered that appropriate conditions requiring the submission of further survey results and identification of proposed mitigation measures, including methods of dredging and use of silt curtains and other means of reducing sediment take up in the water flow, be submitted for the approval of the authority in conjunction with the Environment Agency.

The concerns in respect of migratory fish will now be considered whilst the envisaged impacts on the SNCI are considered in section 5 below.

Migratory fish – this includes species such as salmon, sea trout, eel smelt and shad. The potential adverse impact of the works on migratory fish has been raised by the Wear Rivers Trust, the riparian owners and the Environment Agency – which has responsibility for ensuring the protection of species and habitats within and on the edges of the water environment. The impacts can be summarised as resulting from three processes: noise and vibration from piling and other construction work; introduction of increased levels of sediment into the water column thereby reducing oxygen levels and introducing contaminants; and flood lighting of the bridge works and the final structure.

- Noise and vibration from piling – this can effectively result in the fish migrating up the river refusing to pass the works. In some instances the vibration through the water from the piling can stun and or kill the fish. In line with suggestions made in the EIA, the Environment Agency has indicated that whenever practically possible, piling work should occur outwith the normal migration period of 1st March to 31st October. Any piling within that period would need to be subject to daily timing restrictions based on tidal activity. The Agency would seek to have no piling between low water and low water plus 3 hours so as to allow a sufficient window for fish to migrate. Piling outside of the normal migration period would not be subject to such tidal restrictions. In addition, the Agency has advised that during June, large numbers of juvenile salmon and sea trout smolts pass downstream and out to sea on the ebb tide and 3 to 4 hours after high water. Wherever practicable piling should not occur during these periods. Indeed it considers that winter in river works remain the most low risk option to minimise impact to migratory fish. The Agency has indicated that there are no “off the shelf” remedies to the impacts on fish from such works. Mitigation such as bubble screens may be possible but the developer will be required to demonstrate that this would reduce the noise impacts and by how much so as to convince the Agency that fish would swim by the works without significant harm. The Wear Rivers Trust has indicated that it does not believe that the proposed use of soft start piling, as identified in the EIA, will significantly help to mitigate the impact on fish. Soft start piling essentially means that the intensity of the piling at each session will start slowly and build up in intensity in order that the fish may become accustomed to the noise and vibration and thereby swim past the works. However, it is considered that the use of such measures is good practice in these circumstances and will certainly not exacerbate the situation. A condition requiring the submission of a detailed working method statement will be required to cover

this issue at which stage further discussion with the interested parties may be possible.

- Increased levels of sediment /contaminants in the water – the Environment Agency has indicated that if dissolved oxygen conditions fall below a pre-determined threshold, based on pre-construction monitoring, then works would need to cease until oxygen levels are restored in order to prevent fish mortalities. Low water temperatures in the winter period mitigate against potential low dissolved oxygen conditions making such working periods the most low risk option for adverse impact on fish. The further borehole sampling of the river bed in the vicinity of the central piers will provide further information on the likely levels of and types of contaminants, which could potentially be released. The conditions in respect of contaminated land will effectively cover the potential contaminants issue while a condition in respect of a working method statement should adequately cover the sediment levels, the use of silt curtains being one means of reducing the release of sediment plumes in to the water flow.
- Floodlighting of works/structure – although less of an issue than noise and sediment/oxygen levels, fish may be adversely affected by any high intensity lighting of either the construction works or floodlighting of the bridge once complete. As far as the latter is concerned it is considered that the form of floodlighting proposed by uplighters will have limited effect on fish. The lighting of the works will need to be addressed in the working method statement which will need to be drawn up and submitted once the detailed working arrangements/timetabling have been addressed in more detail.

The Agency has proposed a condition for imposition on any consent requiring the submission of a method statement for the construction works to include the time and methods of operation and has indicated that with such a condition in place it agrees that the application has included sufficient detail to allow the development to be granted consent.

With implementation of mitigation measures proposed in the EIA including scour protection, silt curtains when piling, environmentally friendly dredging methods, soft-start for piling and no working at night (when most fish movement occurs), there will be no significant effect on migratory fish. This is why it was not considered there was a need to talk to riparian owners upstream prior to the submission of the application.

Thus there should be no need to transport fish past the site in a tank as suggested by some of the riparian owner respondents. Also, it is most unlikely that dissolved oxygen depletion will occur as a result of the River Wear project, consequently it is likely that spot samples should be adequate, rather than installing and operating a continuous monitoring device. However the extent of monitoring will be agreed with the Environment Agency.

Consequently, it is considered that the potential adverse impacts on migratory fish can be adequately mitigated through the imposition of conditions so as to ensure that the development complies with the requirements of policy CN22 and the Marine Act 2010 and ensures that the

development will not result in significant adverse impacts on the estuarine environment.

- 5) *Sites of Nature Conservation Interest (SNCI) and Biodiversity Action Plan (BAP) Habitats* – the EIA indicates that within the Timber Beach SNCI, areas of saltmarsh, reedbed and lowland meadow will be adversely affected by the proposal. All of these are UK BAP habitats and habitats of Principal Importance for Nature conservation under section 41 of the NERC Act 2006. Further, outside the SNCI, areas of unimproved neutral grassland and grassland with a calcareous influence will be lost. Members will be aware that policy CN21 of the adopted UDP seeks to preclude development, which will adversely affect a SNCI. As noted above, the potential impact of the proposals on the SNCI were raised by a number of respondents including Durham Wildlife Trust, nearby owner/occupiers and Natural England, and indirectly through concerns in respect of impacts on the saltmarsh habitat by the Wear Rivers Trust, riparian owners and the Environment Agency.

The assessment of the proposal needs to determine whether the scheme through the submitted EMDP adequately mitigates /compensates for the loss of important habitats both within and outside of the SNCI. For instance the revised notification for the Timber Beach SNCI (1995) also recognises the importance of meadows and hawthorn scrub within the site as well as the saltmarsh.

The EIA indicated the key importance of the saltmarsh habitat, which develop from plant colonisation of inter tidal-areas. The consequent trapping of further sediment and concentration of flows of water, inundating and draining the marsh, into creeks and channels and the gradual drying out of the soils, as their level and vegetation increases, results in an increase in the salinity of the soil, which gives the habitat its name. It is estimated that 0.1 ha of saltmarsh would be impacted by the proposal. This would not result directly from the construction of the bridge but from permanent shading of the saltmarsh by the completed bridge, which would degrade parts of it and result in a return to a mudflat habitat. The orientation of the bridge (north – south) would allow direct sunlight on parts of the area for part of the day. The EIA proposes that the design and working practices of the scheme and proposed mitigation should seek to avoid direct impact on and provide compensation for the degradation in order to comply with policy CN21 of the UDP and the conservation of local biodiversity required by section 40 of the NERC Act 2006.

The general mitigation measures include:

- The bridge piers and abutments are sited outside the saltmarsh within habitats of lower ecological value (largely scrub and non-native planting).
- The temporary construction enabling bridge would be built from the south bank thereby minimising disturbance of the north shore.
- No access to the saltmarsh area during construction except for mitigation/enhancement works
- A detailed method statement to be produced for all works within and adjacent to the saltmarsh.

- Accurate plotting and mapping of the area and levels of the saltmarsh area and delineated as no access areas on the ground.
- Protection of the areas by a suitable buffer zone
- Ground levels between the saltmarsh and low tide mark to be unaltered unless so specified by restoration enhancement measures
- All works within the SNCI to be supervised and monitored by an experienced ecologist during the construction period.
- Environment Agency guidelines on pollution prevention measures to be adhered to at all times.

Specific measures to compensate for the loss/degradation of saltmarsh include:

- Re-profiling of the upper shore to allow the extension of the saltmarsh and the extension of timber piling “protection” seaward to retain more sediment and possible use of sediment excavated from the bridge works (subject to contamination checks) thereby raising levels on the lower shore and allowing more mud flat to develop into saltmarsh.
- Measures to be restricted to areas below 5m AOD
- The balance between the creation of saltmarsh and the loss of other habitats, outside the profile of the bridge, and details of the target shore profile are to be the subject of more detailed mitigation strategy.

The subsequent Ecological Mitigation Delivery Plan has been produced and remapping has indicated that 0.12ha of saltmarsh, 0.09 ha of reedbed 0.06ha of unimproved lowland meadow and 0.4 ha of scrub within the timber beach SNCI is within the red line application boundary. The Environment Agency has requested that the saltmarsh is provided at a ratio of 2:1 to compensate for the loss of marine riverbed habitat (0.96ha) as a result of the central bridge pier structure. As regards the dieback of the saltmarsh as a result of shading, the results of studies of the new River Severn Bridge (much bigger than that proposed in this application) indicate that the extent of dieback depends upon the alignment of the bridge deck and that complete dieback is always restricted to areas beneath the centreline of the bridge and nearby. It has also shown that maritime habitats of saltmarsh and inter-tidal sand and silt flats remain. Studies have shown that bridges with a height: width ratio of 0.7 do not adversely impact upon the productivity or function of the underlying saltmarsh and may not require compensatory mitigation. The proposed River Wear Bridge has a height: width ratio of 0.74 (width of 27.1m height above AOD of 20.28m). Additionally shading effects may be less where the bridge line runs nearly north- south as with the River Wear Bridge, as low angle sunlight in the morning and evening can penetrate beneath the bridge. The shading effect is likely to result in a change in density, height and species composition of the affected saltmarsh plant communities. However, it is likely that they will continue to function as saltmarsh vegetation providing food for herbivorous wildfowl and waders and habitats for saltmarsh invertebrates, which act as prey for carnivorous wildfowl and wading birds.

The proposals for habitat creation in the EMDP followed detailed consideration of comments from the council’s ecologist, Natural England, the

Environment Agency and Durham Wildlife Trust. The scheme focuses on providing an overall benefit to biodiversity in the long term.

- Saltmarsh – 0.12ha of new saltmarsh is to be created to compensate for potential shading effects and 0.18 ha to compensate for the loss of river bed habitat. The extent of scour protection to be provided remains to be determined and the extent of mitigation for those areas of lost river bed habitat remain to be determined following the detailed design of that protection. Several broad locations of the new saltmarsh areas were identified. Subsequent discussions with the relevant bodies indicated that salt marsh would best be located to the west of the bridge on the north bank of the river in scrub to the west of Hylton Dene Burn and /or the main area of Timber Beach SNCI. The potential impacts on the existing habitat would be the potential loss of an area of tall ruderal vegetation and scrub and the loss of an area of reedbed and some coastal grassland respectively.
- Reedbed – 0.09ha of this habitat may be lost. However there was a general consensus amongst the relevant bodies that this was encroaching on the saltmarsh and that it should not be replaced.
- Lowland Meadow – 0.06ha of lowland unimproved neutral grassland meadow will be affected. It is proposed that this be replaced by seeding using an appropriate seed mix using species present on the existing habitat including Timothy Grass, Angelica, Common Fleabane, Selfheal, Perforate St John's Wort and False Oat Grass.
- Scrub – 0.4ha will be affected and replacement indigenous planting will be provided within the Timber Beach SNCI again reflecting the existing species composition, including: Hawthorn; silver birch; European Gorse; Dog Rose; Elder; Hazel; and Goat Willow.

The EDMP also indicates that detailed management plans will be required to ensure the long term survival of each of the habitats and ensure its continued enhancement of the local bio-diversity, with guidelines for these set out in the document. The bodies consulted welcomed the management strategy as it is recognised that currently the site is not managed.

The EMDP also sets out mitigation measures for habitat loss outside the Timber Beach SNCI where the majority of the affected land is located. The mitigation planting will contribute to the existing habitat mosaics whilst providing and supplementing existing habitat corridors in line with the Sunderland Greenspace Strategy.

- Trees – on the south shore there are two large areas and one small area of broadleaved plantation woodland of both native and non-native species, which are considered to be in fair condition. The project will result in the loss of 0.09ha of trees on the north shore and 0.47 ha on the south shore as well as 334 individual trees. Replacement planting (transplants, whips and feathered bare root stock) is proposed on a two for one area basis for the broadleaf plantation. Individual young and semi- mature trees lost will be incorporated into the broadleaf plantations on a two for one basis. The 203 mature trees lost will be replaced also on a two for one basis using a mix of Standard girth and feathered stock. Species to be used include: Sycamore; Ash; Alder; Silver Birch; Bird Cherry and Rowan. A management scheme is also proposed to ensure establishment and appropriate thinning after 10 and 20 years.
- Scrub – 0.51 ha will be lost and will be replaced on a one for one area basis using a diverse native species mix to encourage foraging and

breeding resources for birds bats and invertebrates. Species to be planted include: Hawthorn; Silver Birch; European Gorse; Elder; Hazel and Goat Willow. A management strategy is also proposed.

- Hedgerows – an extensive band (470m) of unmanaged hawthorn hedgerow along the northern boundary of the disused sports field on the south shore will be lost. Two for one replacement planting will be provided using a diverse native species mix (hawthorn, blackthorn, elder and hazel).
- Grassland and Meadows – generally unimproved neutral grassland lies predominantly outside the development site although an area of the habitat is located on a 10m high embankment of the south shore with the bank top and shallow slopes dominated by tall fescue. There are also areas of semi-improved neutral grassland within the development site on the western part of the south shore. Approximately 0.12ha of unimproved neutral grassland will be lost on the south shore and an area of 2.11ha of semi-improved grassland will also be lost although this is of low conservation value. Replacement unimproved neutral grassland habitat will be provided on a two for one area for area basis reflecting the species composition of the existing, possibly using seed harvested from those areas. Semi-improved grassland - will be replaced on a one for one area for area basis also reflecting the existing composition.

Discussions with the Environment Agency, Natural England and the Durham Wildlife Trust have indicated that the development of a detailed landscape scheme taking into account the findings and recommendation of the EMDP will ensure that the proposed development of the SSTC and New Wear Crossing will on balance result in the enhancement of the bio-diversity of the area and satisfactorily address the concerns expressed in initial consultation responses. It is considered therefore that with the imposition of a condition requiring the submission of those landscape details and management schemes for each habitat type on any permission granted the scheme, on balance, complies with the requirements of the relevant UDP policies and statutory requirements of both the Habitats Regulations and the NERC Act 2006 and ensures that the overall ecological impacts of the development will result in a positive overall improvement to biodiversity.

Visual Impact of the Proposals

This issue needs to be considered against the advice in PPS1 which seeks to ensure good quality design which considers its impact on the landscape; RSS policy 8 which seeks to promote high quality design in all new development and promoting development which is sympathetic to its surroundings; and policies in the adopted UDP including CN13 which seeks to protect and enhance important public views of townscape, landscape and other value particularly in transport corridors, supported by policy NA30 (3) &(4) which seek to protect views across and along the River Wear.

An assessment of the visual impact / affects of the proposed new Wear bridge was undertaken as part of the Environmental Impact Assessment submitted with the application. This included an assessment of the impact on townscape, landscape, and on a variety of receptors (residents, walkers, road users and walkers). The visual impact assessment was undertaken

from 13 viewpoints, the locations of which had been agreed in advance with council officers. These viewpoints were chosen from around the city to gain an understanding of the overall potential impact of the new bridge on the landscape. The assessment included the provision of wireframe diagrams to illustrate the bridge on the natural landform and panoramic photographs covering the same areas for comparison. However further analysis was requested to provide photomontages of a selected sample of 4 viewpoints to further clarify the impact and provide some additional analysis particularly in respect of the candidate World Heritage Site at St Peters Bishopwearmouth.

The assessment recognises that the scheme has been developed with the express purpose of making a bold and vivid statement, which challenges the viewer and the surrounding landscape. It is considered that mitigation would be inappropriate unless a permanent significant impact is expected on very sensitive receptors. It is concluded that the design and character of the bridge would enhance the existing industrial and commercial townscape of this part of central Sunderland and the River Wear corridor, providing an attractive interface/arrival point counteracting with the low quality townscape of the industrial/commercial riverbanks particularly to the east. The assessment reveals that the greatest magnitude and range of effects would be introduced during the construction process, even so this is only likely to be moderate and of a temporary nature and not significant given the urban location. No significant effects are identified on designated landscapes or conservation areas or setting of /visitors to scheduled monuments or listed buildings within a 5km radius study area.

The proposed bridge would bring about a limited level of visual landscape change in the river valley, particularly along the “green corridor” on the northern bank where there are direct effects through the construction of the bridge structure and the change in the character of the immediate area’s landscape/townscape. As the distance from the bridge increases and within the urban area those townscape effects are reduced.

The assessment of visual effects concludes that significant visual effects are limited to those residential properties and recreational receptors within 1 – 1.5 km of the new bridge, namely:

- South facing residential properties in Hylton Red House;
- North facing properties in Pallion;
- Recreational users of the River Wear Trail.

Consideration of the cumulative effects indicate that the open topography of the River Wear corridor, the mixed scale of the surrounding buildings, limited visual obstruction along the river corridor offering open views would result in a high magnitude of change both positive and permanent to the townscape.

The assessment did not assess the impact of the proposed road links on the landscape, however it is considered that until the final form of the redevelopment of the former Groves site is clarified this would be limited. However, it is recognised that this will be an important consideration for any future masterplan/application for the redevelopment of that area. It is however clear that the final landscaping proposals for the scheme will need to address the mitigation of the immediate impact particularly of the western Blue link as it rises from the end of the bridge up and along the existing embankment to its link with European Way. It will also need to mitigate as far as possible the views experienced by users of the new bridge of retaining

walls and the low quality urban townscape particularly at the south eastern end of the bridge. It is however recognised that opportunities to view the River Wear in Sunderland are currently quite limited and it would be beneficial therefore to counter balance the need for screening with the opening up of some views through proposed structural planting on the new links on the southern banks.

The further visual assessment in respect of the candidate World Heritage Site indicated that any impact would be slight and would be limited to views of the tops of the masts at most. (This aspect is covered in more detail in the section covering the impact on the historic environment).

Supplementary assessment of views from Hylton Castle, Queen Alexandra Bridge and the Hylton (A19) Bridge has been submitted. However the conclusions drawn from the re-assessment did not change the conclusions reached in the initial EIA assessment that the change in views was of low to medium magnitude, with a slight to moderate level of effect and the impact overall was not significant

In addition a view point on Alexandra Avenue, within Sunderland Enterprise Park on the north bank of the river. was assessed following discussions with officers. This concluded that there would be a high magnitude of change to views from this location during the construction phases as it is close to the development. The development would be visible within the main direction of view with the towers visible along with much of the road crossing itself. From within the industrial area the view would be well contained and offer a new feature in the slightly monotonous view of a modern industrial estate. Being close to the viewpoint and directly overlooking the site the magnitude of change would be high with a permanent and direct effect. A distinct feature would appear in the river corridor however because of the strong design of the bridge the effect is considered to be positive.

Restriction of views

Two objectors make reference to the fact that panoramic views across the river valley from Wessington Way should be protected and enhanced in accordance with policy NA30. It also states that open views over the Green Belt in this vicinity could be compromised by construction of the new bridge. However, text in Table 20.5 associated with this policy states, inter alia, that "Wessington Way is a major element of the Strategic Route Network, whose significance is likely to increase with construction of the new Wear bridge. It is therefore of great importance to make maximum use of the potential of the environment of the river valley to create an attractive entry into the City." Therefore, not only does the policy recognise that the policy will be affected by the SSTC proposals, but it is recognised that the river corridor will provide potential for creating an attractive gateway to Sunderland. In addition, the planning application includes measures to enhance the environment around the new crossing. Any bridge crossing would have some impact on the vistas available. However, the relatively slender design of the bridge supports also ensures that any restriction of views to the west from the east of the bridge from publicly accessible viewpoints will be relatively limited and far less intrusive than for instance a repetition of the Queen Alexandra bridge.

Overall it is considered that the scheme will not introduce any significant negative affects on the landscape or townscape of the area and some of the temporary impacts are capable of mitigation via an appropriate landscaping condition on any consent granted, so as to ensure compliance with RSS policy 8 and UDP policies CN13 and NA30.

Highway Implications of the Proposals

Policy T14 of the adopted UDP requires that new development does not result in reduced levels of highway safety. In addition policies T8 and T9 seek to improve facilities for pedestrians and cyclists respectively.

The Transport Assessment submitted with the application indicates that the basic impact of the scheme would be a significant reduction in flows on the A19 Hylton Bridge and on Queen Alexandra Bridge, while north – south flows within Sunderland along the two main ring routes (Front Road / Holborn Road / Springwell Road and Merle Terrace /Kayll Road / Ormonde Street) would see an increase in traffic flow. The Highways Agency has accepted the scheme on its own does not significantly affect the junctions with the trunk road network and therefore has raised no objections.

Assessments of the changes of flow on each link resulting from the scheme have been undertaken. In 2014 the links within the study area where a large increase in traffic occurs are:

- Pallion New Road / Trimdon Street east of the Queen Alexandra Bridge;
- Front Road north of St Lukes Road;
- Merle Terrace south of Pallion New Road;
- Kayll Road south of Hylton Road;
- Tay Road linking the A183 and the A690 in Grindon; and
- Hylton Castle Road.

The assessment indicates that two routes would be significantly relieved by the scheme:

- The Queen Alexandra Bridge; and
- European Way west of Merle Terrace.

The impact of the scheme on the junctions within the study area was also undertaken, revealing that in 2014 the junction with the largest absolute and percentage increase would be the A1231/Castletown Way junction, as a result of its position at the northern bridgehead of the SSTC. As part of the scheme the junction will be remodelled significantly. Increases in traffic of more than 5% are estimated to occur at the A1231/Colima Avenue junction and the Trimdon Street/Hylton Road junction. It is worth noting that traffic is estimated to reduce at 8 of the 15 busiest junctions within the study area. The changes estimated in 2019 show similar findings. The Highways Agency has confirmed that it does not consider that the proposal in itself will impact on the junctions with the trunk road network contrary to the concerns of some of the respondents. It is not considered therefore that the scheme will result in significant traffic congestion within the Pallion area as suggested by some respondents to the consultation exercise.

Spring's Leisure expressed concern at the proposed loss of a direct access from Wessington Way as a result of the revised junction arrangement.

However that claim is not accepted, as the premises have never benefited from such direct access. Access remains available from Timber Beach Road, which can be accessed with a relatively short detour to their west along Wessington Way when approaching from the east or the alternative route along Alexandra Avenue from the junction at the northern end of the Queen Alexandra Bridge. Access from the west is little changed. In addition being immediately adjacent to the new junction will make it more visible to larger numbers of passing vehicles.

Concern was also expressed at the lack of explicit reference to alternative access arrangements /junction options for the scheme having been considered.

One alternative, which was dismissed early in project development, was the closure of Timber Beach Road and the formation of a cul-de-sac either side of the bridge. A short link from Hylton Park Road to Wessington Way east of the bridge was considered but this has since been omitted when detailed design revealed that it could not operate in a safe and efficient manner. The Council's appointed Highway Consultants, Arup, was engaged to prepare the highway design scheme and it has achieved this in a way which minimises impact upon existing properties and which seeks to secure access to existing properties, whilst providing critical connectivity across the river commensurate with the Council's statutory Development Plan objectives.

Concern was expressed by O & H Properties that the need for and line of the proposed western Blue link had not been adequately justified. It is considered however that during the design process these matters were given significant consideration and the main points are as follows.

The Need for the Western Link

The predicted two way morning peak hour traffic flow on the new Wear bridge is 3,087. Of these vehicles 1,051 have a trip origin or destination to the west and south of the bridge location. The purpose of the western link is to accommodate this demand.

If the western link was not provided the consequent increase in the volume of traffic seeking to use the Woodbine Terrace/Pallion New Road junction would be such that the junction would not operate efficiently. The resultant delay to all traffic would be such that the project would fail to achieve one of its primary objectives of reducing congestion.

The traffic impact of not building the western link has been assessed using the same 2008 base year traffic model that was used for the Traffic Impact Assessment. The result of not building the western link would be that in the evening peak period there would be a 16% reduction in 2 way traffic flow on the new bridge and 36% more traffic would use Woodbine Terrace. Similar effects would occur in the morning and inter-peak periods.

In the Department for Transport (DfT) methodology the principal benefits of an intervention are assessed by calculating the time saved by reducing congestion and delay on the network. The calculation is carried out in the scheme opening year and 15 years after opening. If an additional 36% of traffic was to use Woodbine Terrace in the opening year the impact would be that the reserve capacity of the Woodbine Terrace/Pallion New Road junction

would be used up much sooner than would otherwise have been the case. As a result congestion would happen on the network sooner and the associated benefit stream diminished. This would have a potentially severe impact on the scheme benefit to cost ratio.

Location of the Western Link

In designing any highway it is necessary to identify the constraints that place limits on possible alignment options. The design of the western link is constrained by design rules that place limits on radii of the horizontal and vertical curves that can be used and by the topography and geography of the land upon which it is to be constructed. Although not a limiting factor the design was developed with the objective of minimising the impact on potentially developable land.

The Alexandra Business Park site consists of three plateaux separated by embankments. The western link as well as linking the new bridge to the existing highway at European Way (west) also links the mid level (and largest) plateau with the upper level plateau. The design must therefore take account of the difference in level and does so by the construction of a cutting and embankments the limits of which are defined by compliance with the design rules, the nature of the material to be excavated or placed and the shape of the land.

The location and design of the western link is also constrained by the need to tie in with the existing Metro line underpass at the western end of the site. This underpass runs in a north westerly direction, which means that any new road approaching from the east must incorporate a 135-degree change of direction. For the proposed design this is achieved by means of a roundabout, which also serves as a means of access to other parts of the site.

Alternative routes to this roundabout that would run close by the Metro line or through the middle of the level area have been considered but such routes are not considered to be feasible options either because they could not comply with the highway design rules and/or because they take out too great an area of developable land.

The proposed western link in essence skirts the top of the existing embankment thus preserving the maximum amount of flat land for development and providing opportunities for access points to such land. It also accords with the alignment proposed by O&H Group in its application for outline planning permission (04/02405/OUT)

In summary therefore it is considered essential that the western link should be built to deliver reserve capacity on the network and its junctions thereby locking in the transport benefits arising from the use of the new Wear bridge for a longer period. Further the proposed design/alignment of the western link is believed to be the only option that both accords with highway design rules and provides the maximum development opportunity.

It is considered that the scheme overall will improve access to central Sunderland and provide long term benefits for the movement of commercial vehicles to and from the Port as part of the overall SSTC.

The provision of both pedestrian footways and a cyclepath will facilitate easier movement between the north and south areas of the city. The provision of a cycleway on only the west side of the bridge raised some criticism from the Cyclist Touring Club. It is considered that in general future cyclist provisions on the new Bridge have taken in to account the existing and future demand for cycle facilities; optimising the design to integrate and enhance the existing cycle route network and the cost of providing cycling facilities. The original design incorporated a 4m wide shared cycle footway on both sides of the bridge. However, a value management exercise indicated that the benefits likely to arise from the shared facility were low, and therefore it was replaced by the current scheme of a 4m wide shared pedestrian/cycle path on the west and 2 m wide footway on the east side of the bridge. The choice of which side of the bridge to place the cycling facility was based on the potential linkages into the existing cycle routes i.e. the Metro route and NCN7.

On the north side of the river a link is afforded to the eastern side of the new bridge from Wessington Way to Hylton Park Road (NCN 7). It has not been possible to provide a link on the western side of the bridge due the extent of the private land ownership. On the south side of the river there are primarily two new links serving the traffic free path along Pallion New Road to the east and European Way to the west. In essence the pattern of the existing and future cycle route facilities on the south side suggests that a new link to the north side of the river is better suited on the west side of the new bridge.

The reasons for this are:

- Land is available for a new link from Pallion New Road to the new road alignment via the western side of Woodbine Terrace;
- The proposed crossing of European Way is located on the west side of the junction near to the existing bridge crossing located on Pallion Subway; and
- A new cycle route approach is being provided that feeds into the western side of the bridge approach from the west end of European Way

The use of the proposed footway on the eastern side of the bridge has been considered. The existing Queen Alexandra Bridge forms an integral part of the existing river crossing facilities within this scheme. These existing facilities, whose footways accommodate in the order of 100,000 cycle trips each year, are approximately 2m wide, and in 2008-2009 when this shared use was set out, there was no record of pedestrian-cycle conflict. Similar mutually responsible travel should also arise on the new bridge.

In addition the feasibility implications of changing the cycle provision, including how best to allow for cycles on both sides of the bridge, have been reconsidered. The redistribution of elements on the bridge deck to allow for a 3m wide segregated route on both sides of the bridge would have the following impacts:

- Shift the whole road alignment over to the west resulting in considerable redesign of the highway alignment and bridge deck environment;
- Result in an encroaching into the CPO boundary; and
- An increased level of infrastructure provision to maintain the current CPO limits.

Nevertheless the following enhancements to the scheme are being looked at in more detail:

- Additional directional signage of the proposed facilities on the western side of the new bridge for those cyclists using NCN 7 wishing to cross the river at this point;
- Suitable cyclist crossing of the signalised junction at the northern end of the new bridge is also a requirement of the traffic signal design;
- An additional cycle crossing point on Hylton Park Road;
- Cycle route facilities provided on each side of the carriageway marked as the 'blue' route;
- Remodelling/improvements to the existing cycle route connections at the western end of European Way;
- Provision of new cycleways within the CPO boundary along the south bank of the River Wear; and
- Adequate directional signage to marshal cyclists to the western side of the New Wear Crossing.

It is considered that a condition could be imposed on any consent granted to allow for consideration of the final details of these possible amendments to be assessed prior to works commencing. On balance therefore it is considered that the scheme makes acceptable provision for pedestrians and cyclists and will comply with policies T8 and T9.

In overall terms it is considered that the scheme raises no significant issues in respect of the potential impact on highway safety and thereby accords with the requirements of adopted UDP policy T14. Further, it is considered that the scheme overall will improve access to central Sunderland and provide long term benefits for the movement of commercial vehicles to and from the Port as part of the overall SSTC and facilitate the regeneration of sites along the southern banks of the river Wear in line with the aims of the RSS, Sunderland arc and alteration no. 2 of the UDP.

Contaminated Land Issues

The Applicant has submitted a Phase 1b Desk Study and Environmental Statement to support the planning application for the New Wear Crossing. This indicates that the desk studies and ground investigation data have identified multiple potential sources of contamination that may impact upon the proposed development: including metals, metalloids, hydrocarbons, asbestos and Polynuclear Aromatic Hydrocarbons.

Historical land uses include sandpits (now areas of infill), ship building, railways, glass works, engineering works and electrical substations. The

surrounding land has been subject to heavy industry in the form of ship building, brick fields / clay pits, bottle works, potteries, saw mills, quarries, tile works, chemical works, gas works, colliery, coal depots, railways, engine works, electrical substation and cathode ray tube works.

The site is undermined by deep workings in four seams between 440m, and 590m depth but associated settlement is expected to have ceased as mines were last worked in 1955. However, whilst the Coal Authority Report does not indicate any shallow workings, these have not been ruled out by reference to the geology. Unrecorded workings may be a problem.

The risk of gas from infilled areas is assessed as low due to the age of infilling.

Pollution Prevention and Control measures are in place for use of bulk cement in the south east of the site and for chemicals associated with coatings / paints, printing, acid processes, metal casting, timber, waste oil burners and petrol filling stations in the surrounding areas.

The Environmental Health section has advised that If a hazard or hazards are identified on the site from any form of contaminant, the results of the survey shall be utilised to undertake a site specific risk assessment to consider risks to water resources, surrounding land, wildlife, building materials, future users of the site and any other persons. The risk assessment shall be undertaken using the contaminant, pathway, receptor principle.

Due to the limitations of the investigation data the reports conclude that none of the potential contamination from previous contaminative industry can be ruled out. Therefore the Conceptual Site Model includes potential pollutant linkages from all the historical land uses. In all 288 potential pollutant linkages are identified.

The initial Conceptual Model identifies 112 pollutant linkages representing moderate to high risk, i.e. warranting further investigation. Site sources account for 52 of these linkages with the remaining relating to offsite sources. A fuller breakdown is given as follows:

Onsite sources:

31 human health

15 controlled water

6 property

Offsite sources:

30 human health

20 controlled waters

10 property

It is concluded that further investigation of the pollutant linkages is necessary. This would increase point coverage and the suite of potential contaminants. It is recognised that further assessment of these pollutant linkages should take account of the nature of the redevelopment.

The remaining issues to be resolved are as follows:

- distribution and contaminative status of made ground
- underlying geology, depth and thickness of strata
- groundwater flow and quality
- ground gases and soil vapours

Further development of the risk assessment has been identified to be necessary in line with CLR11 guidance. The Environmental Health section therefore has recommended that any planning consent be conditioned on development of the Conceptual Site Model through a Phase II investigation and revised assessment of the potential pollutant linkages. A remedial strategy, implementation plan and verification report should also be a requirement for any mitigation work required.

The following potential significant risks to the environment/receptors will need to be addressed in the assessments undertaken to comply with the proposed conditions:

- 1) exposure to construction workers
- 2) exposure to adjacent site users e.g. dust
- 3) creation of pollutant linkages to controlled waters
- 4) disturbance contaminant sources
- 5) movement of contamination in piling
- 6) construction phase pollution by works
- 7) future users

In addition, mitigation measures will be required to address the following:

- Exposure of construction and maintenance workers via direct contact, ingestion and inhalation
- Exposure of adjacent site users to fugitive dust
- Damage to property, ecology / flora and fauna and amenity receptors
- Contamination by accidental spillage during construction
- Operation Phase
- Exposure of site users, adjacent site users and maintenance workers to residual contamination via direct contact, ingestion and inhalation
- Migration of residual contaminants to uncontaminated strata and controlled waters
- Exposure of property, ecology/ flora and fauna and amenity receptors to residual contamination.

The assessment of the sensitivity and quality objectives for groundwater will need to take account of the requirements of the Groundwater Daughter Directive, 2006/118/EC.

The Environmental Health Section has advised that notwithstanding the requirements of the Environment Agency, it is recommend that conditions are placed on any granted consent that the applicant provide a detailed hydrogeological risk assessment for the proposed works, an options appraisal, mitigation strategy and implementation plan.

From the above it is apparent that the proposed site has previously accommodated an industrial activity that may have resulted in contamination of the land and as such further information is required to determine the condition of the land. The Environment Agency has reviewed the Phase 1B contaminated Land Desk Study report and is satisfied that there are generic

remedial options available to deal with the risks to controlled waters posed by contamination at this site. It has therefore proposed three relatively standard conditions in respect of assessment, remediation measures and validation of their implementation. These also cover the points raised by the Environmental Health Section.

It is considered that with the imposition of the conditions identified above in respect of the contaminated land issue the proposed development will be capable of successful implementation without any undue adverse impact upon groundwaters or human health or other receptors and therefore will be in accord with the guidance set out in PPS23 and policy EN14 of the adopted UDP. However, Members should note that the responsibility for the safe development of the site rests with the developer.

Flood Risk Issues

PPS25 Development and Flood Risk seeks to ensure that spatial planning policy should minimise flood risk wherever possible through the two key mechanisms of Sequential and Exception Tests. The Sequential Test seeks to steer new development to areas of lowest possible flood risk while the Exception Test is applied only in cases where development has to proceed in areas at risk of flooding. This seeks to demonstrate that the flood risk has been satisfactorily mitigated and that the wider benefits of development in this location outweigh the flood risk.

Policies EN11 and EN12 of the adopted UDP predate PPS25 but essentially aim to achieve the same outcomes.

The yellow link of the proposed scheme is within Flood Zone 3, with the Strategic Flood Risk Assessment indicating a high risk of flooding from fluvial or tidal sources. However, the Environment Agency's Flood zones show it being within Flood Zone 1 and therefore with a low risk of flooding from those sources. The submitted Flood risk Assessment includes further analysis, which places the yellow link within flood zone 3a. The new road is considered to fall within the 'less vulnerable' classification of development in undertaking a Sequential Test to confirm that it is suitable for development in this area and that there are no suitable alternative locations for the road within Flood Zone 1. The sequential Test looked at 3 options by which to gain access to the middle plateau of the Groves site which lies to the west of the main alignment

- Provide direct access from the main alignment;
- Provide direct access from the secondary alignment;
- Provide access by extending the yellow link.

The former two were not considered to be desirable because of the extensive earthworks required which would be both costly and reduce the developable area significantly. The extension of the yellow link had the minimum impact on the existing infrastructure and preserved the maximum area of the site for future development.

The assessment of potential sources of flood risk identified those arising from tidal and fluvial sources, groundwater, surface water run on and surface water run off. The peak water levels of 5.06m AOD at the proposed road result from an extreme tidal event with climate change. This would result in

water levels across the road up to a depth of 1.06 m. Although there is no record of historical flooding in the area from groundwater the assessment considers that this may be possible along those lengths of the road very close to the River Wear. The site could also be affected by run on from adjacent sites from a 1 in 100 year return period event whilst additional areas of hardstanding within the Groves site could increase run off levels, which has the potential to cause some flooding.

The road level of the yellow link cannot be raised to reduce the risk of flooding because of the need to retain a minimum height between the road and the deck of the new bridge above. It is considered that the road is likely to be less susceptible to damage from a tidal event than a fluvial event because of the lower flow rates. While no mitigation is proposed in respect of fluvial, tidal groundwater or surface water run on, the detailed design of drainage of the site will ensure that no flooding occurs for a 1 in 30 year return event from surface water run off. Any future development using the yellow link will need to consider access and egress during flood conditions.

In conclusion it is considered that the yellow link is appropriate at this location in terms of flood risk.

An assessment has also been submitted of the likely impact of the central caisson for the bridge on flooding outside the site from both fluvial and tidal sources. This has concluded that the soffitt level of the deck will be almost 7m above the highest predicted flood level and therefore the bridge itself will not be likely to flood. In addition the design and size of the central structure are considered unlikely to significantly affect design flood levels or the conveyance characteristics of the River Wear. Flood risk to existing development will not therefore increase as a result of the new bridge crossing.

A flood risk assessment was also completed for the proposed temporary bridge required to facilitate construction of the main bridge. None of the options for construction of this bridge raised any particular issues as none were considered to have any significant effect on the risk of flooding either within the application site or beyond.

It is noted that the Environment Agency has accepted the findings of the Flood Risk Assessments submitted with the application and therefore the scheme is considered to comply with the requirements of PPS25 and policies EN11 and EN12 of the adopted UDP.

Impact on the Historic Environment (including Archaeology)

Archaeology

In considering these issues it is important to bear in mind the revised guidance recently issued by central government in the form of PPS5 Planning and the Historic Environment as well as the relevant policies in respect of archaeology in the adopted UDP (B11, B13 and B14).

PPS5 includes 7 policies (HE6-12) in respect of applications, which may affect heritage assets. Of particular relevance to this proposal are HE6, HE7 and HE12. Policy HE6 indicates that the information requirements for such

applications should be proportionate to the importance of the heritage asset and no more than is sufficient to understand the potential impact and should detail the sources considered and the expertise that has been consulted. Local Planning Authorities are advised in HE7 that in considering the impact of proposals on heritage assets to take account of the nature and value of the asset to present and future generations and from this understanding, gained from the submitted information and consultation responses and additional expert advice, seek to avoid or minimise the conflict between the heritage asset's conservation and any aspect of the proposal. Finally HE12 sets out the principles for the recording of information on Heritage Assets to increase the understanding of our past and again the proportionate approach is advised.

The policies relating to archaeology in the adopted UDP seek to ensure adequate recording of any archaeological remains found in general and specifically in areas of potential archaeological importance or interest such as the banks of the River Wear with its long history of ship building.

The Archaeological Monitoring Report submitted with the application indicates that 20 geo-technical test pits were monitored. The only finds identified were three 19th century pottery sherds from within an area of made ground. No other significant archaeological resource was uncovered during the monitoring. Nevertheless given the history of shipbuilding along the banks of the River Wear in the vicinity of the application site the county Archaeologist has suggested that a number of conditions are required in order to ensure adequate recording and investigation of the site. Reference is made to the magnetometer survey, which identified a large anomaly close to the area of the caisson for the bridge supports. However, it does not appear as though that will be affected by the proposed works and it is considered unreasonable to require further investigation as part of this application. It is noted also that there are timber stakes and groynes within the Timber Beach site, particularly either side of the mouth of Hylton Dene and more stakes on the south side of the river. The stakes are thought to be part of the 19th century timber beach where timber was stored by the adjacent shipyards. It is currently envisaged that these will be left in place and therefore no specific examination/recording would be required, however recording will be required if they are affected.

The submitted archaeological desk based assessment suggests that dredged material should be inspected in case it contains artefacts. However, the County Archaeologist accepts that it would be impractical for someone to sift through the anticipated volume of material. Rather it is considered that the contractors doing the dredging should be advised, based on a method statement, before work commences of the type of objects, which could be found. It should be possible for any large objects (e.g. altars, inscribed stones, swords, log boats etc) to be spotted when the dredged material is being placed in the trucks for off site disposal. It is acknowledged that it is unlikely that small objects such as coins and small bones will be noticed during these processes. Any objects of potential archaeological importance should be placed to one side and the county archaeologist informed. It should be borne in mind that precious metal objects are classed as treasure and have to be reported to the coroner. Further discussions are being held with the County Archaeologist to determine the feasibility of combining archaeological trial trenching with the necessary geotechnical test pitting on

the site of the bridge abutments and the new roads. Photographic recording of the historic elements of the Crown engineering Works is requested prior to any demolition to facilitate the construction of the new approach roads.

Since there is currently some site investigation work, for the proposed road works, underway on the Groves site, involving boreholes and trial pits, the County Archaeologist has requested that archaeological investigation work be carried out of trial pits on this site based upon a specification he has provided. This work has now been commissioned and is presently underway, with the landowners permission. The work comprises a 'watching brief' to ascertain whether or not there is any material of archaeological interest on the site.

Currently, an archaeological examination of test pits within the Groves site is being carried out in line with a method statement drawn up by the county archaeologist.

It is considered that with the imposition of the six proposed conditions in respect of the required archaeological investigation and subsequent recording of information and findings, the archaeology of the area will be sufficiently recorded to ensure that the scheme complies with the aims of PPS5 and the relevant UDP policies (B11, B13 and B14).

Impact on the setting of listed buildings and the candidate World Heritage Site

Policy HE10 within PPS5 requires that LPA's should treat favourably applications that preserve those elements of the setting that make a positive contribution to or better reveal the significance of a heritage asset.

UDP policy B10 requires that the setting of listed buildings should not be significantly adversely affected by development proposals.

The effects of the proposal on listed buildings is limited because of the distances involved. However, English Heritage considered that the potential impact of the scheme on the candidate World Heritage Site at St Peters Monkwearmouth was not sufficiently addressed in the initially submitted documentation. An additional statement has been produced which provides further substantiation that the impact on the cWHS will be limited and not significant. The tips of the two masts are all that is likely to be visible from the site. English Heritage has indicated that it accepts that the impact will be limited and has no concerns.

Consequently, it is considered that the scheme complies with the requirements of the policy advice in PPS5 and of policy B10 in the adopted UDP.

Sustainability

Government advice on sustainable development is set out in PPS1 Delivering Sustainable Communities. This seeks to ensure high quality development through good inclusive design and the efficient use of resources

and that it supports existing communities with good access to jobs and key services for all members of the community. Within the Unitary Development Plan these aims are also sought through policies R1 and R4. In addition a variety of policies within the RSS seek to achieve sustainable development for environmental, social and economic objectives (e.g. policies nos. 2, 4, 7, 8, 12, 32-5, and 38)

A Sustainability Statement has been submitted with the application to consider the various sustainability implications of the proposed development to demonstrate whether the scheme achieves holistic sustainability against the RSS policies and applicable CEEQUAL (Civil Engineering Environmental Quality Assessment) criteria.

The Statement concludes that overall, compared against the criteria the project is generally in alignment with key sustainability criteria as identified in both the RSS policy framework and the recognised CEEQUAL process. However not all criteria have yet been delivered particularly those relating to contractor procurement and construction changes. There is therefore scope to improve sustainability as the scheme moves forward. Nine main performance areas are examined:

- a) Air Quality – no significant adverse effects are anticipated to result from the project. The improvement and dispersal of traffic movement via new routes will potentially assist in reducing concentrated pockets of poor air quality by reducing congestion points as directly compared to projections of the current baseline situation
- b) Water Resources – the scheme will not have any significant adverse effects on flood risk or river quality and this complies with RSS objectives. A more detailed consideration of the CEEQUAL criteria may suggest further opportunities to ‘enhance’ as well as protect the water environment.
- c) Biodiversity, Geodiversity and Soil Quality – the scheme broadly complies with RSS objectives. The landscape design proposals will acknowledge integration within the wider green infrastructure network. Again possible enhancements via CEEQUAL process. The statement considers that full consideration of environmental issues during project conception allowing integration of actions rather than relying on mitigation of impacts at a later date would have been beneficial. Further investigation of the potential implications of contamination are required and opportunities for enhancing biodiversity should be sought. In respect of the latter the Mitigation Delivery Plan seeks to achieve this through creation of large areas of some habitats than those to be lost and the encouragement of some species (e.g. otters) and provision of new habitats and or opportunities for others.
- d) Waste Management – currently the Waste Management Plan does not include any aspirational targets for waste management methods (e.g. re-use, recycling landfill etc). Such targets should be introduced to conform to current policy requirements. Again CEEQUAL process may identify further opportunities to enhance the sustainability of the scheme.
- e) Material Use – further work is considered to be required to consider the precise materials to be used, their sources and opportunities for using local services and materials.
- f) Landscape – the submitted landscape planting scheme complements the bridge design and assists in delivering a quality designed gateway

/ landmark feature for the city. It advises that the ecological recommendations are fully integrated into the landscape and planting strategy. It should be noted that following the production of the Ecological Mitigation Delivery Plan it is proposed that detailed landscape proposals are to be prepared to ensure delivery of the ecological mitigation and ensure the incorporation of the measures into a comprehensive scheme which will be implemented and maintained.

- g) Historic Environment – whilst no significant impact is anticipated on historical or archaeological remains however the statement advises that measures for monitoring, recording and reporting any unidentified remains during the works should be put in place. It should be noted that this is the aim of the conditions proposed in the County Archaeologist's consultation response.
- h) Social objectives: transport - one of the primary aims of the scheme is to provide transport infrastructure and ease congestion into Central Sunderland while providing regeneration opportunities. The provision of cycle and pedestrian facilities and opportunities for new public transport routes adds to the sustainable nature of the scheme.
- i) Social objectives: Public Involvement – the statement considers that there has been extensive and comprehensive community engagement with impressive feedback as evidenced by the Statement of Community Involvement. This is supplemented by press articles and the council's website.

Since the Sustainability Statement was prepared the project board for the SSTC and New Wear Crossing have decided that the scheme is to be subject to CEEQUAL for the client and design phase further enhancing the sustainability credentials of the scheme.

The sustainability of the scheme was questioned on a number of fronts by Sustrans including the overall benefits of the scheme, the impact on carbon emissions, the continued encouragement to use of the car concluding that the money could be better spent on the delivery of a more sustainable transport system in the region.

Overall benefits of the scheme – the need for a high quality road link to link the Port of Sunderland and the A19 is set out above in the section on the Principle of the Development. The scheme will open up the key regeneration sites at Groves, Vaux and Farrington Row. Public transport services and the cycle network links currently available will be improved by the provision of the scheme through improved north – south links over the bridge and in future through improved links via the later phases of the SSTC to the city centre and The Port. . The encouragement of mixed use development on those sites will further reduce the need to travel long distances to work or to leisure and shopping facilities which are available close by in the city centre. Sustainability is a key design requirement of this scheme and the regeneration site identified above.

The route will improve linkages between central Sunderland and major north-south routes via Wessington Way, reducing traffic congestion at existing traffic bottlenecks at Queen Alexandra Bridge and Wearmouth Bridge in particular. .,

The landmark bridge concept, which will attract both investors and visitors to the city, was developed following an extensive public consultation exercise, which provided Sunderland City Council with a clear mandate to proceed further with the scheme. The crossing is located at a key gateway to the City of Sunderland and has been designed to accommodate cyclists and pedestrians, as well as motor vehicles.

The impact on carbon emissions – Sunderland City Council is fully committed to reducing carbon dioxide emissions in its area. It is a signatory to the Nottingham declaration on climate change and also the Eurocities Climate Change Declaration. Sunderland's Climate Change Action Plan, adopted in November 2008, aims to cut the city's emissions by at least 26% by 2026. More importantly, these targets have been fully embedded within the Sunderland Strategy 2008 -2025, with the support of the Sunderland partnership. The action plan is based on quantified carbon baseline and projections, which include realistic estimates of growth areas (increasing housing numbers, employment sites to be developed, traffic increases) as well as carbon dioxide reduction opportunities. The reduction in emissions will be achieved in many ways and both transport and land-use planning will make their contributions to meeting these targets. The bridge and associated highway linkages will contribute to this through the provision of improved links to the cycle network, potential for improved public transport linkages and the reductions in congestion and associated queuing on the existing road network.

The continued encouragement of the use of the motor vehicle - Transport policy now and in the future is focussed on promoting public transport and non – motorised modes of travel in line with guidance from the Department for transport's publication "Delivering a Sustainable Transport System" (DaSTS). Within this context, modal shift will be encouraged both by providing new infrastructure, altering existing infrastructure and by measures intended to change public attitudes towards travel.

Over the last five years the city has invested in excess of one and a half million pounds in developing the off road cycle network and subject to funding levels being maintained, it is envisaged that this level of investment will continue in the future. In partnership with Nexus, the City Council is promoting a bid for funding from the Department for Transport for major improvements on the main transport corridors which will significantly improve operating conditions for public transport. Should the bid not succeed the improvements will still be delivered, albeit over a longer time, through the Local Transport Plan.

The whole of the SSTC route has been designed to enable priority to be given to buses. In the City Centre, this is achieved by the provision of priority lanes. Elsewhere, including on the bridge and at the junctions, there is sufficient reserve capacity to allow the introduction of a priority lane on the approach to junction, should it be required in the longer term.

In partnership with the other districts in Tyne and Wear, the City Council funds two important travel demand initiatives. The 'Smarter Choices' project is actively promoting measures such as travel planning, car sharing, cycling and walking – all intended to encourage a behavioural shift away from

dependency on single occupancy of a private motor car and towards more sustainable modes of travel. The 'Be Air Aware' campaign has similar aims but is focussed around the achievement of improved air quality as the reward for behavioural change. In addition to having its own travel plan, the City Council actively works with the larger employers in the city area to assist with the development and implementation of their travel plans.

The new Wear Bridge makes its contribution to these initiatives by providing full facilities for pedestrians, cyclists and public transport in the design of the scheme. This new route across the river is fully integrated with the adjoining cycle and footpath networks through the provision of dedicated new links. Providing a much shorter route between the largely residential areas on the north side of the river and existing and new job opportunities on the south side also provides a greater opportunity for travel between the two by non motorised modes.

As well as being designed to provide priority for public transport, the new crossing will also provide the facility for a new rapid centre to centre bus service between Washington and Sunderland. Should street running trams be part of future transport provision, the bridge deck has been designed to accommodate such loadings.

The scheme illustrates that the City Council is fully committed to delivering development in a sustainable manner and is actively seeking to encourage and facilitate modal shift in a number of ways. It is not accepted therefore that the scheme simply encourages the further use of the private motor transport.

The above responses and the additional proposals agreed since the submission in respect of archaeological considerations and the ecological / landscape mitigation should ensure that the statement's conclusion that overall the project is broadly achieving an acceptable level of sustainability has been improved upon. Consequently it is considered that the scheme meets the sustainability requirements of PPS1, policies within the RSS and policies R1 and R4 of the adopted UDP.

Health Issues (Noise, Air Quality and Vibration)

Noise

The submitted EIA set out the findings of a number of surveys and assessments on this issue and the conclusions in brief are set out below.

Three noise assessments were undertaken using an agreed baseline year of 2008, year of opening 2014 and fifteen years from opening 2029 in accordance with the relevant guidance.

The detailed assessments indicate that there will be traffic noise residual effects from the proposed scheme, but in general the scheme will result in decreases in both levels of traffic noise and population exposure to such noise. It is estimated that over 1000 people will become less annoyed by road traffic noise.

In the vicinity of the bridge and on some routes north and south of the River Wear levels of traffic noise will increase. The largest increases of up to 3dB(A) will be experienced in the immediate vicinity of the bridge itself, however it is noted that these areas are of a commercial/industrial nature.

The simple and detailed assessments indicate that decreases in noise levels as a result of the proposed scheme will occur not only in the opening year but will continue for at least the initial 15 year period. Most benefits will accrue to the City centre along with some isolated routes and junctions of the A19. It is not considered that most of the noise increases associate with the scheme over this period are likely to be perceptible to the general public.

The significance of the noise impact is based on the sensitivity of a particular receptor. This will be dependent upon local circumstances and the type of receptor (eg. Residential, healthcare facility, school, hospice etc) as well as the magnitude of any change in noise levels. The predicted future noise level can also influence the determination of significance as it may either exceed or comply with relevant guideline noise limits, irrespective of the amount of change predicted. Other determinants of significance include the duration and frequency of occurrence of the noise, the time of day or night and the day of the week on which it occurs.

Both the simple and detailed assessments indicate that only 2 of the 6 identified study areas were likely to be subject to perceptible changes in road traffic noise at residential dwellings, sensitive addresses and outdoor sensitive locations. Within study area 3 (covering the Silksworth /Grindon/Thorney Close area of the city) the direct effects in the opening year were predicted to be generally positive. While some increases were identified these were estimated to minimise between 2014 and 2029. Within study area 5 (City Centre, much of North Sunderland Ford and South Hylton) the largest increases in levels of road noise are predicted to be in the vicinity of the new bridge. However no dwellings would be subject to such major impacts that they would be eligible for noise insulation grants under the 1975 Noise Insulation Regulations (as amended). However 21 dwellings on Northern Way would experience significant increases in road traffic noise as a result of increased traffic volumes, with this number reducing to 6 properties by 2029.

(i) Construction Noise

The Environmental Health section has commented that once a construction methodology and scheme of working has been determined for the development this shall be submitted to the local planning authority. An assessment shall be undertaken in accordance with BS5228 : 2009 'Code of Practice for noise and vibration control on construction and open sites'

The assessment shall determine the significance of construction noise impacts to local residents and should demonstrate that the total noise (pre-construction ambient plus construction noise) does not exceed the pre-construction ambient noise by 5dB or more, subject to lower cut-off values of 65dB LAeq (0700-1900hrs), 55dB LAeq (1900-2300hrs) and 45dB LAeq (2300-0700hrs) and a duration of one month or more unless works of a shorter duration are likely to result in a significant impact.

The assessment shall incorporate a suitable and fully arbitrated mitigation scheme which draws upon the recommendations of the Environmental Impact Assessment as well as other studies and assessments supporting the planning application and demonstrates that noise emissions from the site comply with the guidance set out in Annex E British Standard 5228-1:2009 at all nearby noise sensitive receptors.

A report shall be prepared and submitted to the local planning authority for approval detailing the results of the assessment, the expected noise levels at sensitive premises, any mitigation measures necessary to minimise disturbance to local residents and the proposed hours of working.

(ii) Construction Traffic

The applicant shall review and update the submitted Construction Traffic Assessment Report upon appointment of the construction contractor to ensure that the assumptions and predictions used in the original report are accurate and valid. The updated document shall be forwarded to the LPA for written approval prior to the commencement of construction works on site.

In conjunction with the reviewed construction traffic assessment, the Applicant shall prepare and submit to the LPA for written approval, a Construction Traffic Management Strategy. The Strategy shall document approved construction routes and delivery times, which have both been negotiated with the LPA.

Additionally, all approved construction traffic routes shall be signposted.

(iii) Operational Road Traffic Noise

A comprehensive set of road traffic assessments have been carried out in accordance with the guidance and methodologies set out in the Highways Agency publication 'Design Manual for Roads and Bridges' Volume 1 2008, the Department for Transport's WebTAG and the Noise Insulation Regulations 1975 (as amended).

For the purposes of the Environmental Impact Assessment significance of the environmental impact of the road was considered based upon the sensitivity of receptors and the magnitude of a change in noise level. No permanent significant effects were identified at residential properties, sensitive addresses and outdoor sensitive receptors within most of the areas likely to be influenced by the development. However significant effects as a direct result of the opening of the scheme in 2014 were identified at 21 addresses in the vicinity of Northern Way. The assessment however identified that the number of these properties experiencing significant effects would reduce to 6 by the future assessment year of 2029.

Following completion of the development a further assessment shall be undertaken at the sensitive locations where it is predicted that there will be a significant noise impact as a result of the development. Should the assessment confirm that these receptors will be subjected to a significant increase in noise levels, mitigation measures shall be provided detailing how the noise level at these locations are to be reduced to below 3dB above the

pre-construction noise levels.

Air Quality

a) Traffic emissions

An air quality monitoring survey for NO₂ using both diffusion tubes and continuous monitoring should be initiated as soon as possible to get a better understanding of pollutant concentrations in the areas around receptors 13 and 18. Monitoring should continue during the bridge's construction and at least for one year after completion.

In addition, due to the uncertainty of the model added to the fact that NO₂ concentrations at a few modelled receptor locations are very close to breaching the annual mean NO₂ AQ Objective, it is recommended that further modelling is carried out for receptors 13 and 18. Efforts should be made to improve the robustness of the model to reduce uncertainty to a minimum. Monitoring results gathered as a result of the air quality survey outlined above could then be used for further verification of the model.

A proposal shall be submitted to the local planning authority for approval detailing the assessment methodology and equipment proposed.

If the monitoring and modelling results indicate that it is still likely that the NO₂ AQ objective will be breached at either of the two-receptor locations then mitigation measures should be suggested to minimise the impact of elevated NO₂ levels at the relevant receptor locations.

b) Dust from demolition and construction

It is not anticipated that the development will generate significant amounts of construction dust as there is minimal demolition of structures required and the majority of the structure is likely to be pre-fabricated within a contained site.

An assessment of the likely generation of dust will be able to be made upon production of a construction methodology. Provision should be made for the reasonable prevention of dust generation. Where this is not possible adequate dust suppression management should be applied. As such a suitable and constant supply of water (mains supply or water bowsers in sufficient numbers) adequate for dust suppression purposes must be provided to the site.

Dust suppression by water should use a dispersal point close to the position of dust generation in order to be more effective in both dust suppression and minimising the volume of water used, and thus run-off

Where dust arises and is persistently problematic means of removing it should be planned and provided, such as water hoses, road sweepers and window cleaners, as appropriate.

Stockpiles of waste materials arising from or in connection with the construction phase of the proposed development shall be dampened down to

reduce fugitive dust emissions from the site.

Vibration from Construction Activities

Vibration from construction operations should not be experienced at nearby residential properties and the provisions of British Standard 6472:1992, Evaluation of Human Exposure to Vibration in Buildings, must be taken into account. Additionally the Council may require that vibration levels be monitored in sensitive locations should neighbouring premises be affected.

Lighting

The Applicant has submitted an assessment of the visual impact of the lighting associated with the proposal on the local townscape. The feature lighting of the bridge is intended to be very subtle with illumination of the inward facing sides of the towers only. A condition will be required on any consent requiring consideration of the interface between the tower illumination and the highway lighting to ensure there are no adverse highway safety implications.

Significant visual effects are expected to be limited to those residential receptors within 1-1.5km of the new Wear Crossing notably south facing residential properties in Hylton Red House and north facing properties in Pallion. However, the concept of the crossing is to make a bold and vivid statement, and thus the Applicant has deemed mitigation to be inappropriate, proposing instead that good site management during construction will be used to minimise visual impact during construction, with careful consideration being given to the long-term maintenance and management of the structure once operational.

With this in mind, it is recommended that a condition be attached to any granted consent.

Consultation Procedures

A number of consultation responses made reference to the lack of contact with properties affected by the proposal. However, it is considered that the council has gone to considerable lengths to articulate its plans for the new bridge and SSTC to as wide an audience as possible. This was begun with the public consultation on Alteration no. 2 of the Unitary Development Plan in 2004 and 2005, which showed the amended new Wear crossing and the SSTC route. This was followed by an extensive public consultation exercise in September 2008 on the new bridge through a series of road shows, a poll on the council's website, publicity in public libraries and leaflets in the Star series of free newspapers. As part of the community engagement three additional events were held at a variety of times to afford the public the best possible opportunity to comment upon the SSTC /New Bridge scheme. The extent of this public consultation and responses to it are clearly set out in the submitted Statement of Community Involvement.

The planning application itself was the subject of widespread notification in three newspapers (Northern Echo, The Journal and Sunderland Echo), letters to residents over a large area around the site and public notices around the edges of the application site, particularly close to proposed junctions for the proposed highway connections. As part of the process of considering the representations meetings have been held with respondents to discuss their issues in an attempt to address their concerns.

The council's Land and Property section has also contacted land owners (and/or their agents) around the proposed development in respect of potential purchase of their land. In some instances there has been little attempt to engage with the council to either discuss the proposals or to seek further clarification of the proposals.

It is considered that the council has undertaken a variety of consultation exercises on the proposal over an extended period of time as well as endeavouring to contact affected land owners. It is considered therefore that more than adequate consultation on the proposals has been undertaken both prior to the submission of the application and subsequently to more than meet the requirements of PPS1 to allow local people to participate in the creation of inclusive accessible, safe and sustainable communities and meeting the aims and objectives of the council's own Statement of Community Involvement (November 2006) which forms part of the Local Development Framework.

Regeneration Issues

A number of respondents have commented upon the potential adverse impact of the proposals on the regeneration and/or industrial/commercial development of sites on both the north and south banks of the river.

- 1) In its objection letter Matalan refer to its premises being located within a strategic location for change under alteration no 2 of the UDP (Policy SA6B), prior to which time it was defined as white land. It is assumed that the objector understands "the aim of areas such as these is to improve connection and integration with surrounding urban areas." In fact, with regard to this point, the policy (policy SA6B.3) actually states that in terms of environmental and access improvements, "redevelopment proposals should ensure that pedestrian/cycle routes to the immediate surrounding areas/facilities, in particular the Groves site, Metro stations and the SSTC, are in place." Although it is not proposed to redevelop Pallion Retail Park through the submitted application for Phase 2 of the SSTC, the detailed proposals for SSTC have taken cognisance of previous master planning work undertaken, inter alia, by Lewelyn Davies consultants on behalf of Sunderland Arc and Sunderland City Council, which cover land in the former Groves Site and the Pallion Retail Park. This work has resulted in proposals for the SSTC, which will result in environmental enhancements to the general environs of the retail park, including improved pedestrian, vehicular and cycleway proposals for the Western (Blue) Link, the new Wear Crossing (Southern Link), Woodbine Terrace and the remodelled, signalised junction at Pallion New Road.

- 2) Matalan also raise concerns that the aims of planning policy for Pallion Retail Park under SA6B.3 “to secure a better mix of uses and a higher quality of development and environment” might not be achieved through the submitted scheme. It considers that the access road to the proposed bridge will take land away from the objector’s premises and could therefore have an adverse impact upon Pallion Retail Park undermining the Council’s policy. In fact, the highway and access arrangements for the new bridge and transport corridor will make the Pallion Retail Park more prominent, more accessible to an enhanced level of passing trade and will facilitate a positive change to the overall quality of land-uses in the area. In terms of ingress and egress arrangements serving Pallion Retail Park, there is no change to the position of the existing access and the provision of a controlled junction will positively improve the access arrangements to the retail park. Notwithstanding these comments, policy SA52A of the UDP (Alteration No’ 2, 2007) states that “The City Council will safeguard land for the construction of the SSTC, river crossing and associated works.” It is considered that Policy SA52A takes precedence over saved policy EC2/6 under the circumstances, because proposals for the SSTC have been brought forward before any applications have been made in respect of works to Pallion Retail Park in terms of policy SA6B.3. Procurement of land to construct SSTC is of paramount importance to ensure the scheme may proceed and in the event, only modest areas of the Pallion Retail Park will be affected by land take for the scheme, to be addressed through the CPO.
- 3) Two other respondents also refer to policies EC2 and EC6 in the UDP, which is a saved policy concerned with the provision of land and premises for the development of business. However, the Wessington Way Dental Practice is the only building on the north Bank of the river, which will be required to be demolished as a result of the SSTC proposals. Consequently, it is considered that the overall aims of the policy are not compromised. Furthermore, Policy SA52A of the UDP (Alteration No” 2, 2007) states that “The City Council will safeguard land for the construction of the SSTC, river crossing and associated works.” Policy SA52, as the most up to date indication of city council policy takes precedence over saved policy EC2/6.
- 4) O&H Properties raised concerns that the scheme would prejudice the aims of policy SA6A.1 of UDP Alteration No. 2. That policy refers to the redevelopment of the former Groves site, which has an important part to play in achieving both economic and housing objectives of both the Regional Plan and the City Council. As indicated elsewhere in the report the scheme was drawn so as to balance the cost of providing the western Blue Link with the aim of retaining as much of the Groves redevelopment site as possible for future development taking into account the topography of the site. While it is considered that minor changes to the alignment may be possible to improve the potential for future accesses to be taken from the link, it is not considered that these are likely to be significant. Indeed the alignment took cognisance of the master plan drawn up in part on behalf of the respondent. Further information has been sent to the objector’s agent to justify the alignment and levels and discussions are proposed to continue. It is not considered that the design of the scheme will have any significant prejudicial impact upon the redevelopment of the Groves sites. Further, it should be borne in mind that the former groves

site cannot be redeveloped to its full extent without the provision of the bridge.

- 5) O&H also expressed concern about the adverse impact of the proposed yellow route on the viable operation of the site now and in the future. It is considered that it was necessary as part of the scheme to ensure that the lower levels of the Groves site could be adequately accessed and that provision had to be made for access to the west under the proposed bridge links. This is achieved by the Yellow link. However, it would not be prejudicial to the overall SSTC/ New Wear crossing scheme if this element was not fully implemented. Discussions on this issue are also continuing.

It is not considered that any of the regeneration issues raised by respondents are sufficient to cast doubt upon the efficacy of the scheme. It is considered that the scheme as proposed will help to bring forward sites for redevelopment particularly on the south bank, will not prejudice the redevelopment of the former Groves site, nor will it significantly limit the operations or continued development of sites along the north bank of the River Wear within Sunderland Enterprise Park.

Aviation Issues

There was some confusion following the receipt of the initial comments from the CAA and Newcastle international Airport (NIA) as to the form of aviation warning light required on the proposed bridge masts. Subsequently the CAA has confirmed that as NIA do not have an “aerodrome issue” their lighting requirements take precedence over the CAA’s guidance. NIA require the bridge to be lit under CAA Publication 168, within which chapter 4 (12.8) refers to obstacle lighting. Using the above guidance NIA has confirmed that as the taller mast is above 150 metres in height it requires the mast to be lit with ‘a single medium intensity (2000 candela) steady red light’. The applicant has confirmed that it is proposed therefore that one light will be positioned at the very top of the larger mast, which would have 360-degree visibility. While NIA do not require the smaller mast (c140 metres) to be lit, for architectural design reasons it is intended to place an identical light on that also. It is considered that it would be appropriate to impose a condition to this effect on any consent issued to ensure that provision.

Playing Field Issues

The former Groves playing fields are situated to the south of the western arm of the Blue link from which land is required to enable the construction of that link. Policy L7 of the adopted UDP seeks to protect playing fields from development unless it can be shown that either they are no longer required or alternative provision can be made elsewhere. As the pitches have not been used for around 10 years they are not subject to the requirements of the Town and Country Planning (Consultation) (England) Direction 2009. This was accepted by Sport England in its response, which it indicated was on a non-statutory basis. Nevertheless the need for the pitches was examined and a shortfall has been identified in overall (public and private) playing/football pitch provision in this part of the city. However the scheme does not preclude the use of the land for playing fields and it is considered

therefore that it would perhaps be more appropriate to consider the issue of potential replacement when proposals for the redevelopment of that land are brought forward in due course.

Other issues raised by respondents

Lack of consideration of the impacts of the proposals on neighbouring uses

With regard to perceived impact on neighbouring uses, integration and severance, it is considered that the access arrangements for adjacent premises have been considered and are being maintained. The provision of the extended bridge provides for the movement of pedestrians and cyclists in Timber Beach Road avoiding conflict with the bridge traffic. In addition, the junction arrangements in Wessington Way will assist pedestrians and cycle users by the inclusion of signals, contributing to a reduction in car dependency and generally improving access for all. The scheme will provide new footways and cycle routes improving access and connections to both current and future economic development employment sites.

It is evident therefore, that the bridge and its associated highway infrastructure will connect rather than divide communities, where there is presently very little connectivity.

Paint Shed-The Environmental Health section has commented that as the proposed development may encompass the provision of a fabrication shed in which painting and finishing works will take place an informative should be placed on any consent issued to alert the applicant to the potential requirement to obtain a permit under the Environmental Permitting regulations 2007.

In the event that the amount of solvent consumed during painting and finishing activities in the proposed fabrication shed is likely to exceed 5 tonnes per annum, the Applicant shall make application for a permit to operate under the provisions of the Environmental Permitting Regulations 2007.

Compensation Issues – the riparian owners and Wear Rivers Trust have raised concerns that in the event that the bridge construction has adverse impacts on the migration of fish and particularly but not exclusively salmon and sea trout riparian owners would suffer financial loss. They consider that there should be an agreement in place to cover the potential compensation for such losses. However, it is considered that such issues go beyond the considerations of a planning application and would be the subject of separate negotiations should there be significant impact on fish stocks which are proven to result from the bridge and associated works. Significant compensation was paid to fisheries interests on the Tyne in recognition of the potential for adverse effects on salmon runs. As no significant effects are predicted on the Wear, this should not be used as a precedent in the case of the new Wear bridge.

Public Utilities apparatus – both BT Openreach and Northumbrian Water have commented on the need for the scheme to make provision for the protection of their services. In the case of the former the technical issues raised in respect of the diversion of services have been resolved. Northumbrian Water has indicated that a condition should be imposed on any consent issued to ensure that it has access to its facilities both during and after the construction period and that water mains and sewers should not be built over. It is considered that this is a reasonable request and would result in the scheme complying with policy B24 of the adopted Unitary Development Plan, which seeks to ensure that new development makes adequate provision for such underground/piped utility services.

Comparisons with the Tyne Tunnel works – it is considered that the comparisons of the scheme with that of the new Tyne Tunnel made on behalf of the riparian owners are erroneous, for the following reasons:

1) The bed of the Tyne Estuary at the tunnel site comprises a high proportion of fine silt with high levels of contamination (especially with Tributyltin compounds (TBT's)) and a high oxygen demand - this is not the case at the bridge site in the Wear, where the substrate is sandier with only moderate levels of contamination and no elevated levels of TBT's;

2) The Tyne Tunnel project involved dredging a very large amount (520,000 cubic metres or about a million tonnes) of this contaminated silt in open water, with significant potential for mobilisation of contaminants and depletion of dissolved oxygen. In contrast the Wear bridge project will involve minimal dredging in open water (most of the silt being removed from inside a coffer dam or a caisson depending on construction method adopted) plus piling, which will disturb small amounts of sediment whose transport will be limited by use of silt curtains; thus the concerns relating to the Tyne Tunnel project do not apply in the Wear.

Conclusions

As can be seen from the above the proposed SSTC and New Wear Crossing raise some significant issues, particularly with respect to the impact on the ecology of the area and providing acceptable access to the former Groves site to facilitate its future redevelopment. However, there is only one outstanding objection to the scheme overall, and the design and location of the bridge were generally supported. Although a number of concerns remain to be addressed it is considered that this can be achieved through the imposition of appropriate conditions on any consent which may be granted.

The principle of the proposal has been shown to be supported by both regional and local planning policies. The design of the bridge has been well received but the alignment of the associated road linkages has been the source of some concerns from affected land owners. The western part of the Blue Link is the subject of continuing dialogue with the agent for O & H Properties. The terrain of this part of the site presents engineering difficulties requiring a balance to be reached between the cost of the engineering solution and the retention of the largest possible developable area on the former Groves site, given its key role in the economic and housing objectives of the City Council. While the applicant remains of the view that the optimum

solution has been submitted, it is considered that if necessary a condition allowing the final alignment of that link to be agreed would be appropriate.

In respect of the ecological impacts the potential impacts on only one protected species, bats, remain the subject of any concern from a consultee. Durham Bat Group remain of the view that the surveys undertaken are inadequate. However, Natural England is satisfied that there is only a low/negligible risk of bat presence in the buildings to be demolished and that, in line with government guidance in circular 06/2005, it would not be reasonable to request emergence surveys. Consequently, it is considered that the scheme would be unlikely to have any undue adverse impact on any protected species with the imposition of the conditions in respect of implementation of the Ecological mitigation Delivery Plan.

Turning to the estuarine environment, the positioning of the central piers in the river bed will result in four principle physical effects, the loss of river bed, sediment disturbance, scour of the river bed and changes to current speed and/or direction. There is a general acceptance by the Environment Agency and riparian owners that there is a need for more testing of the river bed to determine the exact means of mitigation of these effects will need to be the subject of conditions on any consent granted. The impact of any significant changes in the river environment on migratory fish, which include protected species such as salmon, sea trout, eel, smelt and shad is an issue raised by the Environment Agency and particularly the riparian owners and the Wear Rivers Trust. The concerns relate to the potential adverse impact of the construction works as a result of noise and vibration from piling works, the introduction of higher levels of sediment into the water column and consequent reduction of oxygen levels in the river and from light sources during construction and operation. A key element in any mitigation of such effects will be the timing of the workings. It is considered that the drawing up of a working method statement to avoid works taking place at the most sensitive times for the migratory fish should be conditioned. Some of the respondents sought measures and monitoring similar to those on the current Tyne Tunnel works, however it is considered in view of the significantly smaller area of in river works that these would be generally inappropriate.

The potential impact on the Timber Beach SNCI has been clearly set out. The submitted Ecological Mitigation Delivery Plan provides a significant guide for the development of detailed landscape proposals to compensate for those impacts and to enhance the local bio-diversity both within and outside the SNCI.

- A total of 0.3 ha of saltmarsh is to be created to compensate for that affected by the development (0.12ha) and the loss of river bed (0.18ha) with additional areas to compensate for river bed lost to scour protection.
- Some 0.09ha of reedbed will be lost but the interested respondents were agreed that this should not be replaced
- 0.06ha of lowland meadow will be affected and replaced by seeding with an appropriate seed mix
- 0.04ha of scrub will be affected and will be replaced within the SNCI using a mix of the existing species.
- Detailed management plans for each of the habitat areas will be required via appropriate condition(s).
- Replacement tree planting at a ratio of 2:1 within the application site

Natural England, the Environment Agency, and Durham Wildlife Trust have indicated their support for the above proposed mitigation and management plans both pre , during and post construction, would result in an overall improvement to the environment of the area for the benefit of flora, fauna and users of the area.

The visual impact of the proposals was examined in some detail and while it will have a significant impact over a wide area as a result of the height of the towers it is considered that the impacts are often positive while those of a negative nature are not of great magnitude. English Heritage has indicated that it does not consider there will be any adverse impact on the views from or setting of any nearby listed building or the candidate world Heritage site at Bishoptwearmouth. It is considered that the bridge will therefore succeed in its aim of creating a landmark gateway to the city centre.

The introduction of new sections of highway in to the existing network inevitably has some implications for the remainder of the network.. However the submitted Transport Assessment indicates that while some existing roads will experience a reduction in traffic (A19 Hylton Bridge and Queen Alexandra Bridge) others will experience increases (the two main ring routes), but not to any significant extent. The highways Agency has confirmed that the scheme on its own does not significantly affect the junctions with the trunk road network. It is considered that the need for the Blue link western arm is justified by the estimated traffic flows across the new bridge. While some concern was expressed at the lack of specific cycle provision on the eastern side of the bridge it is considered that there were sound engineering and economic reasons for that design which nevertheless makes adequate provision for cycling and linkages to the existing network of cycle routes. The objection from Sustrans on the basis that the funding would be better used on the provision /promotion of facilities for modes of transport other than the car is not one which could be supported.

Much of the site has been the subject of previous industrial uses including shipbuilding and there is potential for contamination from those uses to remain. However, the Environment Agency and the council's Environmental Health section are of the view that there are methods available to deal with the risks to controlled waters and human health which can be adequately achieved via recommended conditions.

The new bridge will not be subject to flood risk nor will it increase the risk of flooding elsewhere and while the proposed Yellow Link will be subject to flooding, as existing roads in that area of the south bank are at present, this is not considered to be sufficient to reason the consider refusing consent for the scheme.

The scheme is not considered likely to have a significant impact on the historic environment in terms of archaeology, listed buildings or the candidate world Heritage site. However conditions are considered appropriate to ensure adequate investigation and recording of buildings and any finds resulting from the necessary watching briefs.

The scheme will be subject to the applicable Civil Engineering Environmental Quality Assessment (CEEQUAL) criteria. This together with

the archaeological considerations and ecological and landscape mitigation proposals and the facilitation of pedestrian, cycle and public transport modes of transport are considered to indicate that the development will be sustainable.

As with any major construction scheme the SSTC and New Wear Crossing will result in some impacts on air quality, noise and vibration. However, it is considered that none are of a sufficient scale that the imposition of appropriate conditions the impacts cannot be reduced to minimum/acceptable levels.

While there has been some criticism of the level of consultation on the proposals this is generally in respect of the details of the impacts of the scheme on individual land owners. It is considered that there has been a significant level of public consultation on the scheme both during the development of the proposals in UDP Alteration no. 2, in the development and design of the scheme and during the planning application process, which exceeds the norm.

One of the major aims of the SSTC and New Wear Crossing is to ensure the future regeneration of sites within the city and particularly those along the south bank of the River Wear (including Groves, Vaux Brewery and Farringdon Row). While some concerns were expressed about potential adverse impacts of the scheme on such aims it is not considered that these are well founded and that the benefits through the improvement of access to the A19 from the city centre and the Port outweigh any small scale disbenefits from the loss of small areas of land within industrial areas.

It is accepted that the height of the scheme will require aviation warning lights on top of the towers and these requirements have been clarified by the CAA and Newcastle Airport and will be conditioned accordingly.

The playing fields affected by the proposal have not been used for some years and therefore are not protected by statute. It is considered the need for any alternative provision would be more appropriately considered as part of the comprehensive redevelopment of the groves site within which they are located.

Overall therefore it is considered that the adverse impacts of the scheme have been either addressed as part of the application or can be addressed by appropriate conditions. Consequently, it is considered that on balance having taken all material considerations into account the proposal is acceptable and will provide the city with a landmark structure and highway infrastructure to facilitate the future redevelopment of sites along the south banks of the river Wear and improve access between the A19 and the central area of the city. It is therefore recommended that, in accordance with Regulation 3 of the Town and Country Planning General Regulations 1992, Members grant consent subject to the conditions set out below.

RECOMMENDATION: GRANT CONSENT in accordance with regulation 3 of the Town and Country Planning General Regulations 1992 and subject to the following conditions.

- 1 The development to which this permission relates must be begun not later than three years beginning with the date on which permission is granted, as required by section 91 of the Town and Country Planning Act 1990 as amended by Section 51 of the Planning and Compulsory Purchase Act 2004 to ensure that the development is carried out within a reasonable period of time
- 2 Unless otherwise first agreed in writing with the Local Planning Authority, the development hereby granted permission shall be carried out in full accordance with the following approved plans:

Insert Here : Plan Nos, dates received and drawing title

In order to ensure that the completed development accords with the scheme approved and to comply with policy B2 of the adopted Unitary Development Plan.

- 3 Notwithstanding any indication of materials which may have been given in the application, no development shall take place until a schedule and/or samples of the materials and finishes to be used for the external surfaces, has been submitted to and approved in writing by the Local Planning Authority. Thereafter, the development shall not be carried out other than in accordance with the approved details; in the interests of visual amenity and to comply with policy B2 of the Unitary Development Plan.
4. No development shall take place until a scheme of working has been submitted to the satisfaction of the local planning authority; such scheme to include days and hours of working, siting and organisation of the construction compound and site cabins, routes to and from the site for construction traffic, the measures to be taken to maintain access during construction to all sites, premises and accesses thereto and measures to ameliorate noise, dust, vibration and other effects, and so implemented, in the interests of the proper planning of the development and to protect the amenity of adjacent occupiers and in order to comply with policies B2 and T14 of the adopted UDP.
5. Before the development commences details of the method of containing the construction dirt and debris within the site and ensuring that no dirt and debris spreads on to the surrounding road network shall be submitted to and approved by the Local Planning Authority. These details shall include the installation and maintenance of a wheelwash facility on the site. All works and practices shall be implemented in accordance with the agreed details before the development commences and shall be maintained throughout the construction period in the interests of the amenities of the area and highway safety and to comply with policies B2 and T14 of the approved UDP.
6. Before the development hereby approved is commenced details of the means of demolition shall be submitted to and approved by the Local Planning Authority. All works shall be carried out in accordance with the agreed details in order to protect the amenities of the area and to comply with policy of the UDP.

7. Prior to the commencement, or such other date or stage of development as may be agreed in writing with the Local Planning Authority, of the development hereby approved, the following components of a scheme to deal with the risks associated with contamination of the site shall each be submitted to and approved, in writing, by the Local Planning Authority:

- 1) A preliminary risk assessment which has identified:
 - all previous uses
 - potential contaminants associated with those uses
 - a conceptual model of the site indicating sources, pathways and receptors
 - potentially unacceptable risks arising from contamination at the site.
- 2) A site investigation scheme, based on (1) to provide information for a detailed assessment of the risk to all receptors that may be affected, including those off site.
- 3) The site investigation results and the detailed risk assessment (2) and, based on these, an options appraisal and remediation strategy giving full details of the remediation measures required and how they are to be undertaken (The Remediation Statement).
- 4) A verification plan providing details of the data that will be collected in order to demonstrate that the works set out in (3) are complete and identifying any requirements for longer-term monitoring of pollutant linkages, maintenance and arrangements for contingency action.

Any changes to these components require the express consent of the Local Planning Authority. The scheme shall be implemented as approved as the environmental setting of the site is sensitive because parts of the development site lie within Zone 3 of a Groundwater Source Protection Zone and on the Magnesian Limestone Principal Aquifer. This condition will ensure that the risks posed by any contamination on the site to controlled waters, human health and other receptors are assessed and addressed as part of the redevelopment and to comply with policy EN14 of the approved UDP.

8. Prior to completion of any part/phase (or such other date or stage in development as may be agreed in writing with the Local Planning Authority) of the permitted development, a verification report demonstrating completion of the works set out in the approved remediation strategy and the effectiveness of the remediation shall be submitted to and approved, in writing, by the Local Planning Authority. The report shall include results of sampling and monitoring carried out in accordance with the approved verification plan to demonstrate that the site remediation criteria have been met. It shall also include any plan (a long-term monitoring and maintenance plan) for longer-term monitoring of pollutant linkages, maintenance and arrangements for contingency action, as identified in the verification plan, and for the reporting of this to the local planning authority. The scheme shall be implemented as approved as the environmental setting of the site is sensitive because parts of the development site lie within Zone 3 of a Groundwater Source Protection Zone and on the Magnesian Limestone Principal Aquifer. This condition will ensure that the risks posed by any

contamination on the site to controlled waters, human health and other receptors are assessed and addressed as part of the redevelopment and to comply with policy EN14 of the approved UDP.

9. If, during development, contamination not previously identified is found to be present at the site then no further development (unless otherwise agreed in writing with the Local Planning Authority) shall be carried out until the developer has submitted, and obtained written approval from the Local Planning Authority for, an amendment to the remediation strategy detailing how this unsuspected contamination shall be dealt with. The scheme shall then be implemented as approved as the environmental setting of the site is sensitive because parts of the development site lie within Zone 3 of a Groundwater Source Protection Zone and on the Magnesian Limestone Principal Aquifer. This condition will ensure that the risks posed by any contamination on the site to controlled waters, human health and other receptors are assessed and addressed as part of the redevelopment and to comply with policy EN14 of the approved UDP.
10. Prior to the commencement of any channel or bank works, a working method statement to cover these works shall be submitted to and agreed in writing by the Local Planning Authority. The method statement shall include:
 - a) Measures to monitor the dissolved oxygen conditions which shall not fall below 5 mg/l.
 - b) The timing of piling operations which whenever practically possible piling work should not occur during the times salmon and sea trout migrate. This restriction should apply from the 1st March to the end of October and as a principle should be applied to any subsequent permanent works. Additionally, from March - June inclusive, large numbers of juvenile salmon and sea trout smolts will be passing downstream and out to sea. This migration occurs on an ebb tide and normally 3 to 4 hours after high water therefore piling work should be restricted, wherever practically possible during this period in the months March - June in any year.
 - c) The details of measures to minimize the release of sediment into the water column.
 - d) The details of any dredging operations to be undertaken.
 - e) The details of river bed scour protection measures to be employed.

Thereafter the development shall be carried out in accordance with the approved scheme and any subsequent amendments shall be agreed in writing with the Local Planning Authority in order to ensure that the risks to migrating fish and oxygen levels in the river from the construction phase of the proposed development affecting the channel of the watercourse are minimized and to comply with policy CN22 of the adopted UDP.

11. No development shall take place until a scheme and programme for the provision and management of compensatory habitat creation to compensate for the loss of river bed as a result of the scour protection measures has been submitted to and agreed in writing by the Local Planning Authority. Thereafter the compensatory habitat shall be implemented managed in accordance with the approved scheme in order to ensure that development that encroaches on the watercourse and estuary does not have a severe impact on its ecological value, in accordance with

Government policy in Planning Policy Statement 9 which requires that where development would cause significant adverse impacts on biodiversity interests, which cannot be prevented or adequately mitigated against, appropriate compensatory measures should be sought.

12. Before the development hereby approved is commenced a detailed landscape and habitat mitigation plan and programme for its implementation, which shall be based on the recommendations of the Ecological Mitigation Delivery Plan (Entec March 2010) shall be submitted to and approved in writing by the Local Planning Authority. The landscaping scheme should clearly demonstrate how the ecological mitigation measures will be incorporated into overall scheme design. Any change to the amount or form of mitigation from that proposed within the EMDP should be clearly reported and justified. To demonstrate deliverability, the means by which the ecological mitigation measures will be managed and monitored in the long term should be provided. This should included details of how any mitigation measures falling outside the application boundary / applicant's ownership will be secured. The scheme shall then be implemented in full accord with approved Plan in order to ensure that there are no significant adverse impacts on the biodiversity of the area to comply with the requirements of PPS1 and policies CN18, CN21 and CN23 of the adopted UDP.
13. No development shall take place until there has been submitted to and approved in writing by the Local Planning Authority a scheme of landscaping which shall include:
 - A full tree survey of all existing trees and hedgerows on the land, and details for their protection during the course of development;
 - A full planting plan identifying the species and plant sizes to be used , planting densities and exact locations of planting and soil improvement works; and
 - The treatment of hard surfaces,in the interests of visual amenity and to comply with policies B2, CN17 and CN18 of the adopted UDP.
14. All planting, seeding or turfing comprised in the approved details of landscaping shall be carried out in the first planting season following the occupation of the buildings or the completion of the development whichever is the sooner, and any trees or plants which within a period of 5 years from the completion of the development die, are removed or become seriously damaged or diseased shall be replaced in the next planting season with others of a similar size and species, unless the Local Planning Authority gives written consent to any variation, in the interests of visual amenity and to comply with policies B2, CN17 and CN18 of the adopted UDP.
15. Notwithstanding any specifications on the submitted plans details of all walls, including retaining walls and structures, fences or other means of boundary enclosure shall be submitted to and approved by the Local Planning Authority before the development is commenced. The agreed details shall be implemented before the development is brought in to use or in accordance with an agreed timetable, in the interests of visual amenity and to comply with policies B2 and T14 of the adopted UDP.

16. Before the development commences a method statement shall be submitted to the Local Planning Authority detailing the method of construction for any works to be undertaken within the crown spread of any trees on the site, such details which shall accord with advice in BS 5837 (2005) Trees in Relation to Construction to include methods of excavation. All works shall be carried out in accordance with the agreed details in the interests of visual amenity and to comply with policy CN17 of the UDP.
17. The erection of fencing for the protection of any retained trees shall be undertaken in accordance with plans and particulars, which shall accord with advice in BS 5837 (2005) Trees in Relation to Construction, to be submitted to and approved in writing by the Local Planning Authority the approved before any equipment, machinery or materials are brought on to the site for the purposes of the development, and shall be maintained until all equipment, machinery and surplus materials have been removed from the site. Nothing shall be stored or placed in any area fenced in accordance with this condition and the ground levels within those areas shall not be altered, nor shall any excavation be made, without the written consent of the Local Planning Authority, in the interests of visual amenity and to comply with policy CN17 of the UDP.
18. In order to ensure that protected species are not present on the site and adjacent areas checking surveys shall be carried out by appropriately qualified ecologist(s) to determine that:
 - 1) No setts have been reoccupied or established on site and no badgers are using the site to forage. The checking surveys should be undertaken prior to commencement of each phase of work
 - 2) No bat roosts have been established in any trees or buildings to be removed / demolished which have previously been surveyed and found to be free of bats but which have some bat roost potential
 - 3) No Great Crested Newts are present in pond two (as identified in the Environmental Statement) in the survey season immediately prior to the works.
 - 4) No Otter holts or resting places are present on the site or adjacent areas no more than three months before the start of works

After each checking survey a report setting out the findings of the survey and where a species is found to be present an impact assessment and suitable mitigation strategy, shall be submitted to and approved in writing by the Local Planning Authority. The agreed mitigation strategy shall then be fully implemented in order to conserve protected species and their habitat and to comply with policy CN22 of the adopted Unitary Development Plan.

19. Any on site vegetation clearance should avoid the bird breeding season (March to End of August) unless the project ecologist undertakes a checking survey immediately prior to clearance and confirms that no active nests are present in order to ensure the protection of live nests and to comply with policy CN22 of the adopted Unitary Development Plan.
20. Before the development hereby approved is commenced the means of and timetable for the treatment or removal and disposal of the Japanese Knotweed on the site shall be submitted to and approved in writing by the

Local Planning Authority. The agreed method statement shall be fully implemented in order to ensure that the species does not spread as required by section 14 of the Wildlife and Countryside Act 1981.

21. Before the development hereby approved is commenced the details of any bat boxes to be provided, their location and timetable for their installation shall be submitted to and approved in writing by the Local Planning Authority. The boxes shall then be installed in accordance with the agreed scheme, in order to ensure the protection and enhancement of the protected species in accordance with policy CN22 of the adopted Unitary Development Plan.
22. Before the development hereby approved is commenced the details of at least one otter holt, its location and timetable for its installation shall be submitted to and approved in writing by the Local Planning Authority. The holt shall then be installed in full accordance with the agreed scheme, in order to ensure the protection and enhancement of the protected species and its environment and to comply with policy CN22 of the approved Unitary Development Plan.
23. Before the development hereby approved is commenced a method statement setting out the means of protecting the habitats of the Timber Beach Site of Nature Conservation Interest during the period of construction shall be submitted to and approved in writing by the Local Planning Authority. The agreed scheme shall be fully implemented in order to ensure that the designated area is not adversely affected by the works in order to comply with policy CN21 of the adopted Unitary Development Plan.
24. No groundworks or development shall commence until a programme of archaeological fieldwork (to include evaluation trenching and where appropriate mitigation excavation) has been completed on the site of the bridge piers/abutments and the new roads. This shall be carried out in accordance with a specification provided by the Local Planning Authority because the site is located within an area identified as being of potential archaeological interest. The investigation is required to ensure that any archaeological remains on the site can be preserved wherever possible and recorded, in accordance with adopted Unitary Development Plan Policy B13.
25. The site shall not be brought into use until the final report of the results of the archaeological fieldwork undertaken in pursuance of condition no. 24 has been submitted to and approved in writing by the Local Planning Authority because the site is located within an area identified as being of potential archaeological interest. The investigation is required to ensure that any archaeological remains on the site can be preserved wherever possible and recorded, in accordance with adopted Unitary Development Plan Policy B13.
26. No demolition/development shall take place until a programme of archaeological building recording has been completed of the historic buildings at Crown Engineering Works and the timber stakes and groyne in the timber beach SNCI, in accordance with a specification provided by the Local Planning Authority. A report of the results shall be submitted to and approved in writing by the Local Planning Authority prior to any development or demolition work taking place, in order to ensure the provision of an

archive record of the historic building or structure and to accord with adopted Unitary Development Plan Policy B13.

27. No groundworks shall commence in the Timber Beach SNCI until the developer has appointed an archaeologist to undertake a programme of observations of test pits and other ground disturbing works to record items of interest and finds in accordance with a specification provided by the Local Planning Authority. The appointed archaeologist shall be present at relevant times during the undertaking of groundworks with a programme of visits to be agreed in writing by the Local Planning Authority prior to groundworks commencing because the site is located within an area identified as being of potential archaeological interest. The observation is required to ensure that any archaeological remains on the site can be preserved wherever possible and recorded and, if necessary, emergency salvage undertaken in accordance with adopted Unitary Development Plan Policy B13.
28. The development hereby approved shall not be brought into use until the report of the results of observations of the groundworks pursuant to condition no.27 has been submitted to and approved in writing by the Local Planning Authority, because the site is located within an area identified as being of potential archaeological interest. The investigation is required to ensure that any archaeological remains on the site can be preserved wherever possible and recorded, to accord with adopted Unitary Development Plan Policy B13.
29. Should any objects of potential archaeological interest be found during dredging activities, then the objects must be safely stored and the County Archaeologist must be informed because the site is located within an area identified as being of potential archaeological interest. The notification is required to ensure that any archaeological remains on the site can be preserved wherever possible and recorded and, if necessary, emergency salvage undertaken in accordance with adopted Unitary Development Plan Policies B13 and B16.
30. If during the in river construction works the anomaly identified in the Fathoms Report is disturbed/uncovered work shall cease until the County Archaeologist has been informed and given the opportunity to examine the disturbed/uncovered artefact and if necessary made arrangements for its further investigation and /or recording because the site is located within an area identified as being of potential archaeological interest. The investigation is required to ensure that any archaeological remains on the site can be preserved wherever possible and recorded, to accord with adopted Unitary Development Plan Policy B13.
31. Before the development hereby approved is commenced the full details of any temporary paint or fabrication shop required to facilitate the construction of the bridge hereby approved shall be submitted to and approved in writing by the Local Planning Authority. The temporary structure shall then be erected in complete accordance with the approved plans and the structure removed on completion of the development in order to ensure a satisfactory form of development and to comply with the requirements of adopted Unitary Development Plan Policy B2.
32. The temporary structures required to enable the erection of the new River Wear bridge shall be removed in accordance with a method statement to be submitted to and approved in writing by the Local planning Authority at least

6 months prior to their removal. The agreed scheme shall be implemented in full in order to ensure that the risks to migrating fish and oxygen levels in the river from the construction phase of the proposed development affecting the channel of the watercourse are minimized and to comply with policy CN22 of the adopted UDP.

33. Notwithstanding the submitted plans the details of the alignment of the blue western link shall be submitted to and approved in writing by the Local planning Authority. The agreed scheme shall be fully implemented in order to ensure the future satisfactory development of the adjacent identified redevelopment site and the provision of a safe highway environment and to comply with policies B2 and T14 of the adopted Unitary Development Plan and policy SA6A.1 of Alteration No. 2 of the Unitary Development Plan.
34. Before the development hereby approved is brought in to use an aviation warning light on top of each of the two bridge masts, in the form of a medium intensity (2000 candela) steady red light, shall be installed in order to ensure that the bridge does not cause an obstruction or danger to aircraft and to comply with CAA Publication 168.
35. Before the development hereby approved is commenced an assessment of the significance of construction noise impacts on nearby residents together with a suitable and fully arbitrated mitigation scheme drawing upon the recommendations of the EIA shall be submitted to and approved in writing by the Local Planning Authority. The report shall demonstrate in accordance with BS 5228:2009 'Code of Practice for noise and vibration control on construction and open sites' that the total noise (pre-construction ambient noise plus construction noise) does not exceed pre-construction ambient noise by 5dB or more, subject to lower cut off values of 65dB LAeq (07.00 – 19.00 hrs), 55dB LAeq (19.00 – 23.00 hrs) and 45 dB LAeq (23.00 – 07.00 hrs) and a duration of one month or more unless works of a shorter duration are likely to result in a significant impact. The agreed working arrangements and mitigation measures shall be implemented in full in order to ensure that the development does not result in significant noise nuisance and to comply with policies EN1 and EN5 of the adopted unitary Development Plan
36. Notwithstanding the submitted Construction Traffic Assessment Report before the development is commenced an updated assessment, to ensure that the assumptions and predictions used in the original report are accurate and valid and to put forward appropriate mitigation measures where appropriate together with a Traffic Management Strategy identifying proposed construction delivery routes and times, shall be submitted to and approved in writing by the Local Planning Authority. The recommendations of the report shall be fully implemented, in order to ensure that the development proceeds in a satisfactory manner, without any undue impact on the environment and to comply with policies EN1, EN5 and T14 of the approved Unitary Development Plan.
37. On completion of the development a further assessment of the noise impact of the scheme shall be carried out at the sensitive locations, principally in the vicinity on Northern Way, where it is predicted in the submitted EIA that there will be a significant noise impact. The assessment shall confirm the significance of the noise impact on those receptors and put forward mitigation measures to reduce the noise levels to below 3dB above the pre-

construction noise levels, in order to ensure that the noise from the development shall be within acceptable limits and to accord with policies EN1 and EN5 of the adopted UDP.

38. At least twelve months before the commencement of construction an air quality monitoring survey for Nitrogen Dioxide, using both diffusion tubes and continuous monitoring shall be initiated and shall then be continued until at least twelve months after the bridge and the associated road network have been brought into use, in order to obtain a thorough understanding of the pollutant concentrations in the areas around receptors 13 and 18 as identified in the submitted EIA. The information gathered shall be used to ensure that the Nitrogen Dioxide AQ Objective will not be breached at the two receptors and a survey report including proposed mitigation measures, in the event that additional modeling indicates that that level will be breached, shall be submitted to and approved in writing by the Local Planning Authority before the works commence. The agreed measures shall then be fully implemented in order to minimize the impact of elevated Nitrogen Dioxide levels at the relevant receptor locations and to comply with policy EN9 of the adopted Unitary Development Plan.
39. Before the development hereby approved is commenced a method statement for the monitoring of vibration levels resulting from the construction works in the event that such vibration is experienced at nearby residential properties shall be submitted to and approved in writing by the Local Planning Authority. The scheme shall then be fully implemented as agreed in order to ensure that the works do not result in significant levels of vibration at nearby residential properties and to comply with policy EN5 of the adopted Unitary Development Plan.
40. Before the development hereby approved is commenced the details of any floodlighting/ exterior lighting, including safety and navigations lighting, shall be submitted to and approved in writing by the local planning authority. The lighting shall be installed in accordance with the approved plans before the building is occupied, in order to ensure a satisfactory form of development and to comply with policy EN1 of the UDP.
41. Before the development hereby approved is commenced an assessment of all lighting proposed for the development shall be undertaken and the results submitted to and approved in writing by the Local Planning Authority. The scheme shall be installed in full accordance with the agreed details in order to ensure that light as a result of the bridge and associated road works does not cause a statutory light nuisance to nearby residential properties and to comply with policy EN1 of the adopted Unitary Development Plan.
42. Before the installation of any highway lighting or floodlighting on the bridge hereby approved, the details of the assessment of the interface between those lighting sources and measures to mitigate any adverse implications for users of the bridge shall be submitted to and approved in writing by the Local Planning Authority. Any mitigation measures required shall be implemented before the development is brought in to use in the interests of highway safety and to comply with policy T14 of the approved unitary Development Plan.