

THE MERSEY GATEWAY PROJECT

ADDENDUM 1 TO THE ENVIRONMENTAL STATEMENT

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1. INTRODUCTION

1.1 Background

1.1.1 This document is an addendum which supplements the Environmental Statement (ES) that was prepared for the Mersey Gateway Project (the "Project"), published in March 2008 and should therefore be read in conjunction with that report. Where a matter contained or referenced to in the ES is not referred to in this document the conclusions and assessments in the ES are unchanged in that respect. Where a term is used in the ES, the same definition or abbreviation is used in this Addendum.

1.1.2 The ES for the Project was submitted to the local planning authority on Monday March 31st 2008 to support planning applications described at Chapter 2 of the ES. The planning applications bear statutory reference numbers 08/00/200/FULEIA (proposed works to existing highway network, specifically the Central Expressway to include junction 12 of the M56 and 08/00/201/FULEIA (proposed works to the existing highway network specifically A533 Silver Jubilee Bridge and Ditton Roundabout). Since the date of the planning application certain changes have occurred. The changes include the following:

- a. Revisions have been made to the application boundaries, in particular, to the area that will be subject to applications under the Transport and Works Act 1992 (TWA);
- b. Changes have been made to the proposal relating to Rights of Way (PRoW) subject to the Transport and Works Act 1992 and Planning Applications;
- c. Changes to the Draft Regional Spatial Strategy (RSS) have been published and a re-assessment of compliance of the Project against the updated policies set out therein;
- d. Changes to the Socio Economic Assessment have been made which need to be presented as an update to this part of the ES;
- e. Changes to information concerning waste disposal facilities in the study area which need to be presented as an update to this part of the ES have become available;
- f. Further information relating to the landscape and visual impact assessment including further visualisations and night time images; and
- g. Further information in relation to the noise assessment (to provide additional clarity) has been prepared which is presented as an update to this part of the ES.

1.1.3 In addition, since the submission of the ES a number of changes have been made to the RSS for the North West which also need to be considered in the context of the application and the ES.

1.2 Requirement for this Addendum

1.2.1 The Project is being promoted under a number of statutory regimes including the Town and Country Planning Act 1990 and the Transport and Works Act 1992. The New Bridge and ancillary matters are being promoted under the TWA. All works not subject to the TWA Application that require planning permission, including works relating to the Silver Jubilee Bridge (SJB), are the subject of applications under the Town and Country Planning Act 1990.

1.2.2 An Environmental Impact Assessment (EIA) must be carried out under both regimes and reported to decision-makers in an ES. The EIA for the Project was undertaken between 2007 and 2008 and presented in the ES published on 31 March 2008. This

addendum comprises environmental information, supplements the information currently before decision-makers and is a material consideration in the decision as to whether to make a TWA Order and to grant planning permission for the Project.

1.3 Scope of Addendum

1.3.1 The changes to the Project and the various applications have been considered for each technical topic discussed in the Environmental Statement, to identify those which are affected and hence which need to be included in the addendum report. The outcome of this process is set out in Table 1.1 below, where a cross indicates that there is no requirement for any further information, and a tick indicates that additional environmental information is required.

Table 1.1 – Scope of Addendum

Discipline	Changes to Application Boundaries	Changes to PRow Proposals	Changes to Planning Policy	Additional assessment (see 'f', para. 1.1.2).
Planning Policy (ES Chapter 6)	x	x	✓	x
Hydrodynamics and Estuarine Process Movement (ES Chapter 7)	x	x	x	x
Surface Water Quality (ES Chapter 8)	x	x	x	x
Land Use (ES Chapter 9)	✓	✓	✓	x
Terrestrial and Avian Ecology (ES Chapter 10)	x	x	x	x
Aquatic Ecology (ES Chapter 11)	x	x	x	x
Landscape and Visual Amenity (ES Chapter 12)	x	x	x	✓
Cultural Heritage (ES Chapter 13)	✓	x	x	x
Contamination of Soils (ES Chapter 14)	x	x	x	x
Waste (ES Chapter 15)	x	x	x	x
Transportation (ES Chapter 16)	x	✓	x	x
Noise (ES Chapter 17)	x	x	x	x
Navigation (ES Chapter 18)	x	x	x	x
Air Quality and Climate (ES Chapter 19)	x	x	x	x
Social (ES Chapter 20)	x	x	x	x
Cumulative Effects Assessment (ES Chapter 21)	x	x	x	x

Planning Policy

- 1.3.2 The ES contained an assessment in accordance with the document “Draft Regional Spatial Strategy (RSS) for the North West” published in January 2006. This was later subject to public consultation between 20th March 2006 and 12th June 2006. An Examination in Public (EiP) into the RSS was held between October 2006 and February 2007. On 8th May 2007 the EiP Panel published its report. Proposed Modifications were issued on 20th March 2008, and are subject to public consultation until 23rd May 2008. It is expected that the RSS will be formally adopted in mid-2008. Whilst the emerging RSS policies largely re-iterate existing policies set out in the adopted RSS, the emerging policies introduce new elements to which any consideration of the Project should address itself.
- 1.3.3 In addition, since the publication of the ES, new policies which will form part of LDF if adopted, are emerging.
- 1.3.4 This addendum considers changes to planning policy that are relevant to the Project and the EIA.

Land Use

- 1.3.5 The changes to application boundaries will alter the area of distinct land uses that may be affected by the construction and operation of the Project, from those discussed in the ES. In addition, alterations to the PRoW proposals may affect the findings of the land use assessment which was set out in the March 2008 ES. These changes have therefore been reflected in this addendum to the ES.

Landscape and Visual Amenity

- 1.3.6 In order to provide an illustration of the Project at night a number of night time images have been incorporated into this addendum to the ES. These images illustrate a number of road schemes which benefit from a similar lighting specification to that proposed for the Project. In addition, visualisations of the Project alignment at the Widnes Loops have been produced and assessed as part of this addendum.

Cultural Heritage

- 1.3.7 The changes to the Project boundaries may affect the geographical extent of the cultural heritage effects and therefore the number of known cultural heritage receptors that may be affected by the construction and operation of the Project. These changes and the resultant effects have therefore been considered in this addendum to the ES.

Transport

- 1.3.8 Changes to the PRoW proposals may affect the findings of the transport assessment which was incorporated into the ES. These changes and the resultant effects have therefore been considered in this addendum to the ES.

Waste

- 1.3.9 Updated waste throughput figures and landfill capacity levels in the North West region have been provided by the Environment Agency (EA) since publication of the ES. This change has requires an addendum to the baseline information set out in the waste assessment in the ES.

Noise

- 1.3.10 In order to enhance the noise assessment work completed for the ES which was issued in March 2008 three high resolution noise change maps have been produced to illustrate changes in noise levels between the do minimum and do something scenarios.

Social

- 1.3.11 Updated transportation information may affect the findings of the assessment of social effects in the ES. These changes have been presented within this addendum to the ES.

1.4 Structure of Addendum

- 1.4.1 Section 2 of this addendum provides details of the application boundary changes.
- 1.4.2 Section 3 provides a revised effect assessment associated with changes to these boundaries by topic as identified in Table 1.1 above, covering Land Use and Cultural Heritage.
- 1.4.3 Section 4 of this addendum provides details of the changes in the PRoW proposals associated with the Project. Section 5 provides a revised effect assessment associated with changes to the PRoW proposals by topic as identified in Table 1.1 above, covering Land Use and Transport.
- 1.4.4 Section 6 provides an assessment of planning policy changes following publication of the March 2008 ES as part of the Regional Spatial Strategy for the North West and the publication of proposals for Halton's development plan. This is followed by Section 7, which includes a revised assessment of the effects of these emerging planning policies by topic as identified in Table 1.1 above.
- 1.4.5 Section 8 sets out updates to the Socio Economic Assessment.
- 1.4.6 Section 9 identifies updated waste throughput figures and landfill capacity levels in the North West region that have been issued by the Environment Agency (EA) since the publication of the ES. This includes a revised assessment of the effects on waste management associated with the construction and operation of the Project as a result of this.
- 1.4.7 Section 10 sets out additional information in the Landscape and Visual Effects assessment including night time representations of schemes using similar lighting proposals and visualisations at certain sections of the Project's alignment.
- 1.4.8 Section 11 contains supplementary change maps to illustrate changes in noise levels associated with the Project.

2. APPLICATION BOUNDARIES

2.1.1 Figures 2.1 to 2.7 to this addendum identify the changes of the planning application boundaries and area to be subject to the TWA Application (together the “application boundaries”). Table 2.1 and Table 2.2 below outline the changes to the boundaries that were used in the original assessment for the ES. The changes are as follows:

Table 2.1 – Changes to the Transport and Works Act Application boundary

Area	Change
Construction area A – to the south of the A562 Speke Road to Liverpool.	The revised boundary extends further south on to the golf course and forms a straight line in comparison with the previous jagged line.
Construction area B– area crossing the railway line.	The revised boundary extends outwards away from the previous line where it crosses over the railway line.
Construction area C –area in the Catalyst Trade Park and an area to the east.	To the western side of the Catalyst Trade Park, the revised boundary extends outwards. To the east of the Widnes Loop Junction (which crosses the Catalyst Trade Park) the revised boundary follows the Project alignment, whereas the old previously travelled northwards.
Construction area D – land over the estuary and saltmarshes.	To the south west of the Widnes Warth saltmarshes, the revised boundary extends southwards. Where the Project alignment crosses the estuary, the revised boundary is widened either side of the alignment. In addition, there is a small change to the construction access route situated to the south west of Astmoor saltmarshes/Wigg Island.
Construction area E – Astmoor Industrial Estate	The revised boundary extends to the western side of the Project alignment to both the north and south of Astmoor Industrial Estate.
Construction area F – Bridgewater Junction	The revised boundary shows adjustments to the east, south and west of the junction alignment.

2.1.2 These changes have been made to the application boundaries shown in the plans that accompany the ES as previously omitted, so that working areas are sufficient and that areas to be subject to changes to highways are fully addressed. As the Transport and Works Act application had not yet been made at the date of publishing the ES, these changes have been developed as a result of considering the full TWA application itself.

Table 2.2 – Changes to the planning application boundary

Area	Change
Construction area G – A533 Central Expressway	The revised boundary extends east of the Project alignment onto the Halton Link Road and west onto the B5155. The revised boundary has also been modified slightly with some minor widening in other areas of construction area G. To the south west of the Weston Link Junction, the new boundary draws in, and closely follows the Project alignment. To the north of the junction, the new boundary extends slightly northwards.
Construction area H - M56 Junction	To the east of the M56 junction, the revised boundary extends eastwards.
Construction area I - SJB	At the most northern extent of construction area I, there is a small change between the old and revised boundary line on Desoto Road (East and West). In addition, the revised boundary line extends west where the Project alignment crosses Waterloo Bridge (Runcorn side).

2.1.3 These three amendments to the planning application boundary do not affect the application plans which already reflection this information. However, because the ES was printed prior to the date of the planning application, the drawings that it contains are revised slightly in light of this addendum.

3. REVISED EFFECT ASSESSMENT – APPLICATION BOUNDARY CHANGES

3.1.1 A summary of the environmental matters affected by the changes to the Project, is set out in Table 1.1 above. An explanation of those disciplines affected by the changes to the application boundaries is provided in the following paragraphs.

3.2 Land Use

Introduction

3.2.1 As outlined in Chapter 2 of this Addendum, a number of changes should be considered as a result of the revised application boundaries. The assessment considers the impact of the altered boundaries on existing land uses identified within the “project corridor” (centred on the proposed route and extending 500m each side of the works) as described at 9.3.1 b. in the ES.

Baseline

3.2.2 Land uses identified within the “project corridor” in Chapter 9 of the ES remain unchanged for the assessment of this addendum.

Identification of Receptors

3.2.3 The following receptors have been identified in relation to the likely significant environmental effects associated with changes in land use within the revised “project corridor”, as a result of the changes to the application boundaries following the submission of the ES. These include:

- h. Community Resources/Open Space/Greenspace;
- i. Commercial/Industrial Land;
- j. Agricultural Land;
- k. Infrastructure; and
- l. Development Land.

Construction Phase Effects

Community Resources/Open Space/Greenspace

3.2.4 The changes to the application boundaries will not affect the total area of greenspace identified within the “project corridor”, and therefore remains approximately 452.60 ha. The predicted loss of greenspace during construction will change from 26.31 ha to 29.60 ha; an increase of 3.29 ha (12.5%).

3.2.5 The Project will result in an additional effect on the southern part of St Michael’s Golf Course, which is currently classified as greenspace (and is also identified as a community resource). This area lies within land that would be severed from the golf course and is located between the toll booths and Ditton Road. The additional area equates to approximately 1.10 ha in addition to the original 10.53 ha calculated to be affected in Chapter 9 of the ES. This is not anticipated to compromise the ability of the Council to re-open the golf course in the future because this area would have been severed in any case. Therefore the impact significance at paragraph 9.7.36 of the ES remains high negative under its designation of greenspace.

3.2.6 As outlined in Chapter 9 of the ES, there will be a temporary effect upon saltmarsh during construction. These areas are designated as greenspace, and in the case of Wigg Island, is also designated as Green Belt.

- 3.2.7 The access route that runs adjacent to the Manchester Ship Canal on Wigg Island has been subject to change as a result of the modifications to the application boundary. However, this change is considered not significant to the 0.05 ha area lost that was originally calculated in Chapter 9 of the ES. These changes to the land required temporarily as part of the works for the Project are minor, and therefore the effect remains of moderate significance.
- 3.2.8 In addition, a loss of approximately 1.24 ha of greenspace located within the existing infrastructure (such as the Bridgewater Junction) (previously not included in the calculations in Chapter 9 of the ES) have been included in the updated calculations. This is because whilst they are not accessible to people they are designated as greenspace.
- 3.2.9 A small parcel of land located adjacent to Junction 12 of the M56 is designated as greenspace. This area of greenspace was previously not specifically discussed with regard to the loss of greenspace. A portion (approximately 0.40 ha area lost) of this parcel of land previously required for the Project, is no longer required due to the changes of the application boundaries, reducing the potential effect.
- 3.2.10 The changes to amount of greenspace lost in the whole project context will not result in a change to the effect assessment and the assessment at paragraph 9.7.41 of the ES, therefore remains of moderate significance, as assessed in Chapter 9 of the ES.

Commercial/Industrial Land

- 3.2.11 The total area of commercial/industrial land identified in within the “project corridor” remains at approximately 236.62 ha.
- 3.2.12 A number of small areas of commercial/industrial land would be affected by the changes of the application boundaries. The combined area for the additional loss of commercial/industrial land in these areas equates to 0.79 ha, the areas of further loss occur in construction areas B, C and E. Therefore making the total loss of commercial/industrial land 21.02 ha. An increase of 0.79 ha, from approximately 20.23 ha. The loss of these areas will not result in a change to the effect assessment at paragraph 9.7.48 of the ES which remains of high negative significance.

Agricultural Land

- 3.2.13 As identified in section 3.2.9 of this report, the parcel of land (approximately 0.40 ha) located adjacent to Junction 12 of the M56 is no longer required for the Project. This parcel of land is classified as agricultural quality grade 5 (very poor), and is currently used for horse grazing. Previously, 6.73 ha of agricultural land within the “project corridor” was required for the Project. Due to the changes of the application boundaries, the loss of agricultural land will now be 6.33 ha. The effect significance was previously moderate for this piece of land. Due to the changes of the application boundary, the land is no longer needed and the effect assessed at paragraph 9.7.54 of the ES is therefore not significant.

Existing Road Infrastructure

- 3.2.14 As noted in Chapter 9 of the ES, a number of modifications to the existing infrastructure within the Borough will be required for the construction of the Project. Even though there have been modifications to the application boundaries, there will be no change to the current land use as all modifications will be made within the highway boundary.

Therefore, the effect significance will remain low positive as set out at paragraph 9.7.58 of the ES.

Public Rights of Way (PRoW)

- 3.2.15 Chapter 9 of the ES outlines that there will be a number of temporary closures and diversions during the construction of the Project. A number of these diversions have been modified with regard to the specific routes that will be used for these diversions. These changes are further detailed in Section 5.1 of Chapter 5 of this report and illustrated in the supporting figures. There will be no change to their current land use designation and they will not be completely lost. Therefore it is anticipated that the effects from construction on the PRoW that intersect the Project will remain of low negative effect significance.
- 3.2.16 Section 5.1 outlines that a number of PRoW which are currently only used for access to existing buildings, will be lost as a result of the construction of the Project. During construction, these PRoW will be permanently stopped up and therefore will be lost under their current land use designation. PRoW used to access buildings are of high importance as they provide access to buildings, if the buildings were to remain. The magnitude of this impact will be high as they will no longer exist due to the construction of the Project, therefore the effect is of high negative significance. However, the buildings will also be lost and therefore the impact is not significant.

Development Land

- 3.2.17 As identified in Chapter 9 of the ES, development land designated as Regeneration Action Areas (RAAs) will be lost/changed as a result of the Project. Due to the changes in the application boundaries, Southern Widnes RAA will be affected by minor changes. An additional 0.27 ha will be affected in Southern Widnes RAA. These small additional areas of land required due to the revision of the application boundaries, increase the total land take of land designated as RAAs in the "project corridor" to approximately 34.07 ha from the original 33.80 ha calculated. As a result of this change, it is considered that the effect assessment at paragraph 9.7.76 of the ES will not change and therefore will remain of high positive significance.

Operational Phase Effects

- 3.2.18 There is no change to the operational land take required for the Project from that assessed in the ES, other than as detailed below for the specific land uses affected by the revised application boundaries.

Commercial/Industrial Land

- 3.2.19 As outlined in Chapter 9 of the ES, there will be no further loss of land during the operational phase of the Project. Parcels of land lost at Astmoor Industrial Estate (Construction area E) will no longer be required for the operation of the Project. These parcels of land previously equated to 7.91 ha, however, due to the changes of the application boundaries, the additional land released at Astmoor Industrial Estate will now be approximately 8.33 ha. As noted in the ES effect assessment, this land will no longer be fit for its original designated use and therefore the effect significance at paragraph 9.7.102 of the ES remains high negative.
- 3.2.20 The additional areas of land lost in construction areas B and C will be permanently lost. However, this will not affect the overall effect assessment, and therefore the effect significance also remains high negative.

Infrastructure

Public Rights of Way (PRoW)

- 3.2.21 As noted in section 5.1 of this report, during the construction phase of the Project, a number of temporary diversions and closures will be implemented. Chapter 9 of the ES outlined that during the operation of the Project, those PRoW affected during the construction would either be re-established, permanent diversions would be provided or alternative routes already exist following completion of the Project. Therefore, any changes made will not directly alter or prevent these routes functioning under their current land use designation. Such improvements/diversions to these routes will be beneficial rather than detrimental (as set out in Chapter 9 of the ES).
- 3.2.22 A number of PRoW which are currently only used for access to existing buildings will be lost through the Project infrastructure. As these buildings will no longer exist due to the Project infrastructure the loss of access routes will have no effect, and therefore the effect is not significant.
- 3.2.23 As detailed in section 5.1 of this report, the assumed rights of way identified across St Michael's Golf Course will be permanently stopped up. The construction phase in Chapter 9 of the ES previously identified the loss of land in that phase. No additional loss of land will occur during the operation of the Project in terms of land use.

Mitigation, Compensation, Enhancement and Monitoring

Commercial Industrial Land

- 3.2.24 Commercial/industrial land comprises one of the largest proportion of land uses affected by the scheme (as outlined in Chapter 9 of the ES). The changes to the application boundaries have a minor effect on the areas of commercial/industrial land lost. These losses are primarily areas at the Catalyst Trade Park and the Astmoor Industrial Estate.
- 3.2.25 As noted in Chapter 9 of the ES at paragraph 9.8.8, there is the opportunity to use areas of land formerly in other uses such as highways, for commercial/industrial land during the operation of the Project, even though that land was previously lost to the construction phase of the Project.
- 3.2.26 Therefore, due to the modifications to the application boundaries, calculations for the land made available for redevelopment at Astmoor Industrial Estate could now be up to 7.12 ha.
- 3.2.27 Table 3.1 shows the revised summary of the commercial/industrial land lost both temporarily and permanently within the project corridor during the construction and operation of the Project. It also outlines the total change in the land lost at these locations after mitigation (i.e. if released for an other use) and residual effects.

Table 3.1 - Commercial/industrial land lost and returned during the construction/operation phase of the Project.

Construction Area	Construction Period (temporary land loss)	Operation Period (permanent land loss)	Land made available for redevelopment/original land use	Residual Effects (permanent land loss)
B - Ditton Junction to Freight Line	4.91 ha	3.71 ha	1.1 ha	3.81 ha
C - Freight Line to St Helens Canal	6.20 ha	5.03 ha	0.90 ha	5.30 ha
E - Astmoor Viaduct	8.03 ha	3.31 ha	7.12 ha	1.90 ha
I - SJB and Widnes Delinking	1.88 ha	0.00 ha	1.88 ha	0.00 ha
Total	21.02 ha	12.05 ha	11.00 ha	11.01 ha

3.2.28 From the data above, it can be seen that with land available for return to its original use after construction and mitigation, the commercial/industrial land lost now reduces from 21.02 ha to 11.01 ha. This was the effect of increasing the permanent amount of land affected as set out in Table 9.11 of the ES.

Infrastructure

Public Rights of Way (PRoW)

3.2.29 Section 3.2.16 of this report, outlines that a number of PRoW currently used to access buildings will be lost due to the construction of the Project. As outlined in the mitigation for commercial/industrial land, there may be opportunities for development of land under Astmoor Viaducts. If this mitigation proceeds, it may be possible that PRoW may also be created in conjunction with these developments.

Residual Effects

3.2.30 There will be no change to the residual effects identified in Chapter 9 of the ES, other than to those detailed below for the specific land uses affected by the revised application boundaries.

Commercial/Industrial Land

3.2.31 The unmitigated commercial industrial land lost due to the Project is approximately 11.01 ha. As noted in Chapter 9 of the ES, ultimately, the Project will reduce the overall land available for commercial/industrial land currently designated for that use. Although mitigation reduces the significance of the effect, the losses still remain to be of moderate negative significance.

Agricultural Land

3.2.32 As a result of the changes to the application boundaries, agricultural land which was previously required as a result of the Project is no longer needed. Therefore, the effect assessment at paragraph 9.7.106 of the ES has been revised and is now considered to be not significant.

Infrastructure

Public Rights of Way (PRoW)

3.2.33 As outlined in section 3.2.16 of this report, a number of PRoW that are used to access buildings will be permanently lost as a result of the construction of the Project. These PRoW will be lost at the same time as the buildings that they serve which are also being permanently removed for the construction of the Project. Therefore the residual effect significance will be not significant.

Table 3.2 –Residual Effects as assessed in the ES on Land Use Receptors affected by the Project.

Effect	Receptor and importance	Nature of Effect	Significance (High, Moderate, Low and Positive/Negative)	Mitigation & Enhancement Measures	Residual Significance (High, Moderate, Low and Positive/Negative)
Construction Phase					
Loss of land used for horse grazing.	Agricultural Land Moderate Importance	Permanent High Magnitude Long Term Direct	Moderate Negative Significance		Moderate Negative Significance

3.2.34 As a result of the revision to the planning application boundaries, the effects identified in Table 3.2 have been updated by the effects detailed below in Table 3.3.

Table 3.3 – Revised Residual Effects as assessed in the Addendum on Land Use Receptors affected by the Project.

Effect	Receptor and importance	Nature of Effect	Significance (High, Moderate, Low and Positive/Negative)	Mitigation & Enhancement Measures	Residual Significance (High, Moderate, Low and Positive/Negative)
Construction Phase					
Loss of land used for horse grazing	Agricultural Land Moderate Importance	Permanent Neutral Long Term Direct	Not Significant		
Loss of PRoW to access buildings	Infrastructure High Importance	Permanent High Long Term Direct	High Negative Significance		High Negative Significance
Operational Phase					
Loss of PRoW to access buildings	Infrastructure High Importance	Permanent High Long Term Direct	High Negative Significance	Commercial/industrial land lost to the Project has the opportunity to be returned to its original	Not significant

				land use designation, and therefore a number of PRow may be created as a result of this proposed mitigation.	
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3.3 Cultural Heritage

Introduction

3.3.1 A number of changes have occurred to the amount and location of land included within the application boundaries. The assessment below considers the impact of the altered boundaries on existing archaeological and cultural heritage receptors within a study area defined by the land-take for the permanent works and also extending to an area approximately 500m around the permanent works to take into account those cultural heritage features which are not directly affected by the permanent works but for which there may be an indirect effect caused by the Project.

Baseline

3.3.2 With respect to the cultural heritage receptors identified in the ES it is confirmed that none of the identified receptors now fall outside the altered boundaries. One receptor, identified during the ES, but which was not subject to any direct or indirect effect as a consequence of the construction or operation effects is now within the altered boundaries.

Identification of Receptors

3.3.3 The following receptor has been identified in relation to potential effects associated with construction and operation of the Project, arising from the changes to the application boundaries following the submission of the ES. This receptor is a collection of wrecked Mersey Flats - flat-bottomed cargo vessels – known to exist on the south-west of the Widnes Warth saltmarshes. The site of these wrecked vessels was identified during the walk-over survey and was given the Gazetteer No. 224 (see text section 13.6.32 and Figures 13.8 and 13.14 – Sheet1).

3.3.4 The revised application boundaries increase the land-take required for the Project and in proportion to the increase in the land-take there is an increase in the potential for previously undiscovered sites/features of heritage interest to be affected during any ground disturbance works.

Construction Phase Effects

3.3.5 There are no identified direct or indirect effects on the wrecked vessels recorded as Gazetteer No. 224. However, the wrecked vessels are now included within the limit of land that may be used for legitimate purposes to effect the project. Such purposes may include the use of the land for storage of material and/or plant and such use has the potential to disturb to the vessels.

3.3.6 The direct and indirect effects of the construction phase on as yet unknown archaeological remains that may be present in the areas now included within the application boundaries cannot, by definition, be identified, nor their significance assessed.

Operational Phase Effects

- 3.3.7 The operational phase of the Project would have no direct or indirect effects on the wrecked vessels recorded as Gazetteer No. 224. The direct and indirect effects of the operational phase on as yet unknown archaeological remains that may be present in the areas now included within the boundaries for the Planning Application and the Transport and Works Act cannot, by definition, be identified, nor their significance assessed.

Mitigation, Compensation, Enhancement and Monitoring

- 3.3.8 As there are no confirmed direct or indirect effects on the wrecked vessels recorded as Gazetteer No. 224 no mitigation, compensation, and enhancement is required. However, it would be appropriate for the Environmental Management Plan to identify the location of the wrecked vessels and provide that location with an exclusion zone (to be physically identified on site as well as on plans) so that the vessels are not disturbed by any legitimate construction activities. In tandem with this provision, and, as the Project evolves, it would be appropriate for the relevant regulatory authorities to monitor the progress of the Project and take into account any variations to the Project which may lead to a potential direct or indirect effect on the wrecked vessels.
- 3.3.9 As noted in the ES (Chapter 13, text section 13.8.2) an archaeological watching brief, with contingency to respond to findings, is the mitigation measure identified as the most appropriate response given the low potential for the construction groundworks to uncover hitherto unidentified archaeological remains. The appropriateness of this recommendation holds good for the additional areas which are now included within the application boundaries.

Residual Effects

- 3.3.10 There is no predictable change to the identified residual effects on archaeological and cultural heritage receptors arising from the additional areas within the application boundaries as there is no additional direct or indirect effect to any known archaeological or cultural heritage receptor and no direct or indirect effect to any known archaeological or cultural heritage receptor has been subtracted. Any effect on any as yet unidentified archaeological receptor within the additional areas within the application boundaries would be partially mitigated or off-set by the recording works undertaken upon discovery as part of the mitigation measures and the recovery of any information would add to the overall knowledge and understanding of the history and development of the area.
- 3.3.11 The following table highlights the approach to be taken to the additional areas within the application boundaries to manage the effect of ground disturbance works during the construction phase affecting as yet unknown archaeological remains leading to loss of remains related to the history and development of the area.

Table 3.4 – Revised Residual Effects on Cultural Heritage Receptors affected by the Project.

Effect	Receptor and Importance	Nature of Effect	Significance (High, Moderate, Low and Positive / Negative)	Mitigation & Enhancement Measures	Residual Significance (High, Moderate, Low and Positive / Negative)
Construction Phase					
Ground disturbance works affecting as yet unknown archaeological remains leading to loss of remains related to the history and development of the area	Undiscovered buried remains of heritage interest Low importance	Negative Long Term Permanent Direct Unknown	Unknown	Mitigation of an unavoidable effect by means of management measures to limit an adverse outcome: A programme of archaeological field work, recording and reporting.	Not significant

4. PUBLIC RIGHTS OF WAY (PROW) CHANGES

4.1 Introduction

4.1.1 This section of the addendum explains the changes to the proposal relating to rights of way in the TWA application in comparison to those described in the ES. It provides an assessment of the changed impacts arising as a result. Table 4.1 outlines a number of rights of way to be temporarily or permanently stopped up and the diversions that are to be provided for these changes following the submission of the ES. Figures 4.1 to 4.5 identify the amended proposals regarding the rights of way and their temporary and permanent diversions. The changes as a result of the TWA application are as follows:

Table 4.1 – PRow to be stopped up

PRoW to be stopped up	Description	Assessed in ES
Footpath on land to the north and south of the A562 Speke Road.	Footpath Widnes58 to be permanently stopped up between PS1 and PS2.	Yes
Footpaths to the south of A562 Speke Road.	Informal paths, (not on definitive map) within the closed St Michaels Golf Course between PS3, PS4, PS5 and PS6 to be permanently stopped up.	No (formal PRowS, yes)
A553 Queensway	To be permanently stopped up between the Garston to Timperly Rail Freight Line (HS1) and Speke Road (HS2)	Yes
Ditton Roundabout	To be permanently stopped up (HS3)	No
Ditton Road	To be permanently stopped up between HS4 to HS5.	No
Lower House Lane	To be permanently stopped up between HS6 to HS7.	No
A557 Widnes Eastern Bypass	To be permanently stopped up between the junction with the A553 Queensway (HS8, HS9) and the junction with the A562 Ashley Way, north of the Garston Timperly Rail Freight Line (HS10).	No
Catalyst Trade Park Private Roads	HS11 to be permanently stopped up.	No
Dock Road	To be permanently stopped up (HS12)	No
Footpaths to the south of A557 Widnes Eastern Bypass. (historic footpath identified on definitive plan)	Footpaths Widnes60, Widnes61 and Widnes62 (definitive right of way not currently accessible) to be permanently stopped up between PS8 and PS10, between PS8 and PS9 and between PS7 and PS8.	Yes

PRoW to be stopped up	Description	Assessed in ES
Footpaths to the south of A557 Widnes Eastern Bypass.	Surfaced paths (not on definitive map) to be permanently stopped up between PS7 and PS11, between PS7 and PS12 and between PS7 and PS13. A permanent diversion will be provided between PD1 and PD2 and PD1 and PD3.	No
Goddard Road	To be permanently stopped up between HS13 and HS14 and HS15 and HS16.	No
Astmoor Road	To be temporarily stopped up between TS9 and TS10	Yes
Astmoor Busway	To be temporarily stopped up between TS11 and TS12	No
Lancer Court	To be permanently stopped up (HS17)	No
Dalton Court	To be permanently stopped up between HS18 and HS19.	No
Davy Road	To be permanently stopped up between HS20 and HS21.	No
Chadwick Road	To be permanently stopped up between HS22 and HS23.	No
Footpath to the north of Bridgewater Canal.	Footpath Runcorn No25 (part) and Halton No16 (part) to be temporarily stopped up between TS13 and TS14.	Yes
Footway on the southbound verge of the Central Expressway.	Surfaced path (not on definitive map) to be permanently stopped up between PS24 and PS25.	Yes
Bridgewater Expressway	To be permanently stopped up between HS24 and HS25.	Yes
Central Expressway	To be permanently stopped up between HS26 and HS27, between HS27 and HS28, between HS29 and HS30, between HS31 and HS32 and between HS27 and HS33.	Yes
Goddard Road	To be permanently stopped up between HS13 and HS14 and HS15 and HS16.	No
Astmoor Road	To be temporarily stopped up between TS9 and TS10	No

5. REVISED EFFECT ASSESSMENT - PUBLIC RIGHTS OF WAY (PROW)

5.1 Transportation

Introduction

- 5.1.1 This section considers the conclusion of the Transport Chapter of the Environmental Statement (ES) as a result of changes to the Public Rights of Way (PRoW) as assessed in the ES as a result of the TWA application, as outlined in Chapter 4.

Baseline

- 5.1.2 The baseline as identified in Chapter 16 of the ES remains unchanged.

Construction Phase Effects

- 5.1.3 Further temporary diversions required during the construction phase include:

Areas A, B and C

- 5.1.4 The changes to the Public Rights of Way means that paragraph 16.7.193, which identifies the stopping up and diversion of the PROW through St Michaels Golf Course, should also address the temporary diversion to the Trans Pennine Trail, to the south east of the Widnes Loops Junction, as shown in Fig 5.1.

Area D

- 5.1.5 Paragraph 16.7.203 should be amended to reflect the following changes to the Public Rights of Way:

- 5.1.6 Figure 5.2 identifies three additional PRoW which will be affected during the construction of the New Bridge. Two of these Public Rights of Way on either side of the Manchester Ship Canal will be temporarily closed for approximately 6 months during the construction phase, therefore the effect assessment will remain at high negative significance.

- 5.1.7 The third PRoW through Wigg Island will also be temporarily closed during the construction phase; however the route will be diverted as shown in Figure 5.2 and therefore there will be no change to the original effect assessment.

Area H

- 5.1.8 The temporary alternative route to be stopped up along the Bridgwater canal (paragraph 16.7.218) has been slightly amended as shown in Figure 5.3, this will not have an effect upon the effect assessment of high negative significance.

Operational Phase Effects

- 5.1.9 Additional changes to the Public Rights of Way will have a limited effect during the Operational Phase because the changes are minimal and access to all routes will remain as previously identified in the ES..

- 5.1.10 In addition to those routes identified in paragraph 16.7.157 of the Environmental Statement, the Project will have the following effects:

- a. A number of desire lines across the closed St Michael's Golf Course will also be permanently stopped up. Due to contamination of the site the golf course is currently closed and therefore the effect assessment remains unchanged.

- b. A number of PRoW, which are currently only used for access to existing buildings, will be lost through the Project infrastructure. As these buildings will no longer exist due to the Project infrastructure the loss of access routes will have no effect on the assessment of low negative significance.
- c. The permanent diversion to the east of the Widnes Loops Junction has been amended slightly to follow the new boundary, as shown in Fig 5.1. Access will remain and therefore the effect assessment will remain at low negative significance.
- d. The PRoW to the north of Bridgewater Junction will be permanently closed. An alternative route is shown in Figure 5.3 which will maintain existing access and therefore the effect assessment will remain low negative significance.

5.1.11 A summary of the amended effects are tabulated in the Environmental Effect Summary Table 5.1, this replaces the corresponding sections in table 16.39 of the ES. Only the effect column has been amended as the other sections have remained the same.

Table 5.1 – Summary of Effects

Effect	Receptor and Importance	Nature of Effect (as set out in table 16.39 of ES) (Permanent / Temporary and Magnitude)	Nature of Effect (as per revised assessment set out in this Addendum) (Permanent / Temporary and Magnitude)	Significance (High, Moderate, Low and Positive / Negative)
Construction Phase				
Areas A, B & C Removal of the PRoW linking Cross Street and Ashley Way with Spike Island and the Trans Pennine Trail (TPT) and effect of construction works on the cycleway along Ditton Road, Ashley Way and Victoria Road. Temporary closure and diversion of TPT.	Pedestrians High	Permanent High Magnitude Short Term Direct	Permanent High Magnitude Short Term Direct	High Negative Significance
	Cyclists High	Temporary High Magnitude Short Term Direct	Temporary High Magnitude Short Term Direct	High Negative Significance
Stopping up of the PRoW through St Michaels Golf Course. Alternative route to the south and west of the golf course will link with the Old Lane PRoW at Ditton Road. Desire lines across the golf course will also be permanently closed.	Pedestrians High	Permanent Low Magnitude Short Term Direct	Permanent Low Magnitude Short Term Direct	Not Significant
Area D The effect of construction activities on the PRoW along the Manchester Ship Canal and desire lines along Wigg Island will require closures of stretches of the paths.	Pedestrians High	Temporary High magnitude Short Term Direct	Temporary High magnitude Short Term Direct	High Negative Significance
	Cyclists High	Temporary High magnitude Short Term Direct	Temporary High magnitude Short Term Direct	High Negative Significance
Areas E, F, G and H Effect of the Bridgewater Junction remodelling work on the	Pedestrians High	Temporary High magnitude Short Term	Temporary High magnitude Short Term	High Negative Significance

Effect	Receptor and Importance	Nature of Effect (as set out in table 16.39 of ES) (Permanent / Temporary and Magnitude)	Nature of Effect (as per revised assessment set out in this Addendum) (Permanent / Temporary and Magnitude)	Significance (High, Moderate, Low and Positive / Negative)
surrounding PRoWs, cycleways and bridleways. Including closure of PRoW although access will be maintained through alternative route.		Direct	Direct	
	Cyclists High	Temporary High magnitude Short Term Direct	Temporary High magnitude Short Term Direct	High Negative Significance
	Equestrians High	Temporary High magnitude Short Term Direct	Temporary High magnitude Short Term Direct	Not Significant
Operational Phase				
Overall no significant change in pedestrian movements or access to local facilities for non cross-river trips as a result of the Project, but localised effects at Widnes Loops Junction, Bridgewater Junction and St Michael's Golf Course.	Pedestrian High	Permanent Moderate magnitude Direct Long term	Permanent Moderate magnitude Direct Long term	Low Negative significance

Mitigation, Compensation, Enhancement and Monitoring

- 5.1.12 The following mitigation measures have been identified as a result of additional changes to the PRoW.

Construction Mitigation

Areas A, B and C

- 5.1.13 The mitigation proposed at paragraph 16.8.12 of the ES should also include reference to a temporary alternative route which will maintain access during construction from the Trans Pennine Trail along Victoria Road, onto Croft Street linking to the original path. A permanent route will be created following the construction phase.

- 5.1.14 A temporary diversion will also be in place along a short section of the Trans Pennine Trail during a limited part of the construction phase, see Figure 5.1.

Area E, F, G and H

- 5.1.15 Paragraph 16.8.16 of the ES should be amended as the PRoW along Bridgewater Canal will be closed, and an alternative route will provide access via the existing path on the Central Expressway slip road linking back onto the PRoW near Bates Bridge, as shown in Figure 5.3.

Operational Mitigation

Speke Road Toll Plaza, Widnes

- 5.1.16 The proposed diverted route is shown in Figure 5.4, the PRoW will run along the edge of the highway to the west, along St Michael's Road linking into the existing PRoW to the north of the

golf course. A number of desire lines which currently cross the golf course will also be permanently closed.

Bridgewater Junction

- 5.1.17 An alternative route to the closed PRow to the north of Bridgewater Junction will maintain existing access.
- 5.1.18 A new PRow will be provided along the south facing slip of the Bridgewater Junction, replacing the closed footway along Central Expressway, as shown in Figure 5.3.

Residual Effects

- 5.1.19 The amendments to the public rights of way are not considered significantly to change access to existing locations and therefore there is no change to the overall residual effects.
- 5.1.20 The table below reflects the amendments to the effect column, replacing the corresponding sections to table 16.40 of the ES. The remaining columns are unchanged.

Table 5.2 - Mitigation and Residual Assessment Table

Effect	Receptor and Importance	Nature of Effect (Permanent / Temporary and Magnitude)	Significance (High, Moderate, Low and Positive / Negative)	Mitigation & Enhancement Measures	Residual Significance (High, Moderate, Low and Positive / Negative)
Construction Phase					
Areas A, B & C Removal of the PRow linking Cross Street and Ashley Way with Spike Island and the Trans Pennine Trail (TPT) and effect of construction works on the cycleway along Ditton Road, Ashley Way and Victoria Road. Temporary closure and diversion of TPT.	Pedestrians High	Permanent High Magnitude Short Term Direct	High Negative Significance	The works are to be carried out in phases with the diverted PRowS planned with minimum additional journey lengths.	Moderate Negative Significance.
	Cyclists High	Temporary High Magnitude Short Term Direct	High Negative Significance	Traffic management and phasing of the works to take into account the requirements for cyclists (road widths and signing).	Moderate Negative Significance.
Stopping up of the PRow through St Michaels Golf Course and diversion along the western boundary of the golf course to link with the Old Lane PRow at Ditton Road. Desire lines across the golf course will also be permanently closed.	Pedestrians High	Permanent Low Magnitude Short Term Direct	Not Significant		
Area D The effect of construction activities on the PRow along the Manchester Ship Canal and desire lines along Wigg Island will require closures of stretches of the paths.	Pedestrians High	Temporary High magnitude Short Term Direct	High Negative Significance	Construction activities to be staggered and carried out in two phases. During the first phase the PRow can be diverted via desire lines along Wigg Island and in phase two the desire lines can be diverted via the Manchester Ship Canal.	Moderate Negative Significance.
	Cyclists High	Temporary High magnitude Short Term Direct	High Negative Significance		

Effect	Receptor and Importance	Nature of Effect (Permanent / Temporary and Magnitude)	Significance (High, Moderate, Low and Positive / Negative)	Mitigation & Enhancement Measures	Residual Significance (High, Moderate, Low and Positive / Negative)
Areas E, F, G and H Effect of the Astmoor junction remodelling work on the surrounding PRowS, cycleways and bridleways.	Pedestrians High	Temporary High magnitude Short Term Direct	High Negative Significance	The Astmoor Road and footpath closure to be carried out during quiet periods (weekend, night-time) to minimise effect to pedestrians and cyclists.	Moderate Negative Effect
	Cyclists High	Temporary High magnitude Short Term Direct	High Negative Significance		Moderate Negative Effect
	Equestrians High	Temporary High magnitude Short Term Direct	Not Significant		
Operational Phase					
Overall no significant change in pedestrian movements or access to local facilities for non cross-river trips as a result of the Project, but localised effects at Widnes Loops Junction and St Michael's Golf Course.	Pedestrian High	Permanent Low magnitude Direct Long term	Low Negative significance	3 PRow may be affected by construction of Speke Road Toll Plaza (St Michael's Golf Course), and Widnes Loops Junctions. Alternative routes will maintain access. Supports implementation of Halton wide Sustainable Transport Strategy enhancement.	Moderate Positive Significance

6. CHANGES TO PLANNING POLICY

6.1 Draft Regional Spatial Strategy for the North West – Proposed Changes (March 2008)

6.1.1 A full review of RSS13 commenced in July 2004. A draft document was published by the North West Regional Assembly (NWRA) in January 2006. This was subject to public consultation between 20th March 2006 and 12th June 2006. An Examination in Public (EiP) into the RSS was held between October 2006 and February 2007. On 8th May 2007 the EiP Panel published its report. Proposed Modifications were issued on 20th March 2008, and are subject to public consultation until 23rd May 2008. It is expected that the RSS will be formally adopted in mid-2008. Whilst the emerging Regional Spatial Strategy policies largely re-iterate existing policies set out in the adopted Regional Spatial Strategy, the emerging policies introduce new elements to which any consideration of the Project should address itself. These draft policies of relevance to the Project are set out and assessed below. The emerging policies of the RSS should be considered in addition to those policies addressed in the ES. They do not change the conclusions in that document.

Draft Policy RT2 – Managing Travel Demand

6.1.2 This policy states that “*public transport improvements may be part of a comprehensive approach to discourage car use.*” This policy considers “the proportion of car-borne commuting” to be a major issue, especially during peak periods and on the most congested parts of the motorway network.

6.1.3 Draft policy RT2 seeks to reduce private car use and improve access to public transport, “*backed by effective provision for pedestrians and cyclists.*” Further to this, the policy promotes the “*effective reallocation of road space in favour of public transport, pedestrians and cyclists.*”

Relevance

6.1.4 The Project seeks to facilitate the enhancement of cross-river public transport, pedestrian and cycle links and provision through modifications to the SJB. Road space on SJB will be relocated for the purposes of the Project. The extent to which the Project satisfies the provisions of this policy should therefore be considered.

Assessment

6.1.5 The Project will directly deliver a wider choice of quicker, safer and more reliable road and public transport travel through both the provision of the New Bridge and the proposed works to Silver Jubilee Bridge (SJB). In summary the benefits comprise:

- a. Reliable, non-congested passage across SJB primarily benefiting public transport and local traffic;
- b. Works to provide upgraded pedestrian/cycling facilities across the SJB; and
- c. More reliable travel resulting from the removal of uncertainty as to journey timing that is currently caused by the severely congested Silver Jubilee Bridge. This latter point applies directly to public transport provision.

Compliance

6.1.6 The Project is considered to be in accordance with the provisions of draft policy RT2.

Mitigation and Residual Impacts

- 6.1.7 The Project is considered to be in general accordance with draft policy RT2. No mitigation measures are therefore proposed, and thus no residual impacts arise for review.

Draft Policy RT4 – Management of the Highway Network

- 6.1.8 This policy focuses on the management, maintenance and improvement of the Regional Highway Network and existing infrastructure, affording a “*focus on improving road safety, reducing traffic growth and maintaining a high quality environment through mitigating the impacts of road traffic.*” Policy advises that proposals for major road improvements “*should only be included following an examination of all practical alternative solutions to a particular problem.*”

- 6.1.9 Policy encourages road traffic “*to use the most appropriate routes wherever possible.*” The accompanying text states that congestion on the highway network occurs mainly on strategic routes / at junctions on main roads during peak periods, and thus promotes “*a consistent approach to highway management and maintenance across the Region.*”

Relevance

- 6.1.10 The Project proposals incorporate improvements to the regional highway network following a comprehensive examination of all practical alternative routes and solutions. The proposals seek to address traffic growth in the form of a tolling regime. The provisions of draft policy RT4 are therefore relevant to the assessment of the proposals.

Assessment

- 6.1.11 The Project has sought to have regard to the general elements of policy RT4 in that it:
- a. Seeks to improve road safety and encourage alternative transport through re-allocating road space to pedestrians and cyclists on the SJB; and
 - b. Seeks to manage traffic growth via the implementation of tolling on both the New Bridge and SJB to remove congestion within an important transport corridor.
- 6.1.12 With regard to the requirements to examine alternative options in satisfying demand, Chapter 5 of the ES sets out how this exercise has been undertaken as part of the assessment. The chapter has undertaken an appraisal of the following strategic development opportunities:
- a. Halton Travel Plan Network;
 - b. Charging for using the SJB or other roads;
 - c. Dynamic Lane Management;
 - d. Selective Access by Vehicle Tagging;
 - e. Road Space Re-Allocation;
 - f. Park and Ride;
 - g. Rail Service Improvements;
 - h. Fixed crossing to the west of the Railway Bridge;
 - i. Fixed crossing between the SJB and the Railway Bridge; and
 - j. Fixed crossing to the east of the Railway Bridge.
- 6.1.13 The findings of the Alternatives assessment (Chapter 5) have concluded that a fixed crossing to the east of Aethelfleda Railway Bridge is the only option which has the potential to deliver all of the identified scheme objectives.

Compliance

- 6.1.14 The proposals are considered to be in compliance with the themes and provisions set in draft policy RT4.

Mitigation and Residual Impacts

- 6.1.15 The Project is considered to be in general accordance with the provisions of draft policy RT4. No mitigation measures are therefore proposed, and thus no residual impacts arise for review.

Draft Policy RT9 – Walking and Cycling

- 6.1.16 This policy affords high priority to “*routes linking residential areas with employment areas, schools, hospitals and other community services.*” Policy also notes the importance of enhancing “walking and cycling routes wherever possible” in order to widen accessibility.
- 6.1.17 The accompanying text states that improved “*provision for pedestrians and cyclists can contribute towards reducing car dependency and assist with the achievement of wider regional objectives.*” These objectives include the development of sustainable communities, enhancing accessibility, improving health and supporting tourism. The accompanying text also direct reference to draft policy RT4 with regard to the potential impact for more effective highway management in respect of the walking and cycling “experience”.

Relevance

- 6.1.18 The New Bridge will span the Upper Mersey Estuary, thus creating a direct link between the towns of Runcorn and Widnes. The SJB proposals also re-allocate road space to pedestrians and cyclists in an effort to reduce car dependency. The provisions of this policy therefore require an assessment of the Project.

Assessment

- 6.1.19 The New Bridge will provide an important new direct road link between Runcorn and Widnes, thus linking important cross-river services and amenities including access to jobs, shops, and educational institutions. The New Bridge will also enhance multi-modal access, including Liverpool John Lennon Airport. This will provide access to national and international locations and services.
- 6.1.20 The delivery of the New Bridge will also facilitate the re-allocation of road space across the SJB to pedestrians and cyclists in line with the provisions of draft policy RT9 and wider regional objectives, providing an alternative and safe means of cross-river transport.

Compliance

- 6.1.21 The Project is considered to be in full compliance with the provisions of draft policy RT9 and therefore no conflict with policy arises.

Mitigation and Residual Impacts

- 6.1.22 No mitigation measures are proposed, and no residual impacts will arise for review.

Draft Policy RT10 – Priorities for Transport Management and Investment

- 6.1.23 The general priorities for transport management and investment set out in draft policy RT10 “*will be determined in accordance with the RSS objectives, spatial principles (DP1 – 9) and the regional and sub-regional spatial frameworks in RDF1 and sub regional policies.*”

- 6.1.24 This policy states that schemes for which funding has been allocated, and those subject to investigation, will be listed in the implementation plan at adoption.
- 6.1.25 The accompanying text requires long-term transport planning initiatives which are subject to funding to consider the full range of assessment criteria, namely:
- a. behavioural change;
 - b. getting better use out of existing infrastructure;
 - c. technology and innovation;
 - d. pricing signals;
 - e. regulation and enforcement;
 - f. changes to public transport services;
 - g. small infrastructure schemes which address a specific need;
 - h. major infrastructure schemes.

Relevance

- 6.1.26 The Project is allocated funding, as per the current implementation plan which will accompany RSS at adoption. The extent to which the Project satisfies the objectives of draft policy RT10 should therefore be considered.

Assessment

- 6.1.27 An assessment of the Project against regional priorities expressed within draft policy RT1 is set out below:
- i. Behavioural change;
- 6.1.28 The Project will provide for the enhancement of walking, cycling and public transport provision across the SJB to encourage alternative modes of cross-river movements. It will therefore encourage behavioural change in accordance with the wider sustainable aspirations of the transport agenda.
- ii. Getting better use out of existing infrastructure;
- 6.1.29 The Project comprises physical improvements and reconfiguration of the SJB to deliver enhanced public transport, walking and cycling provision. The New Bridge will also link in with the existing highway network, including the Central Expressway, to utilise existing transport infrastructure where possible. It will enhance the use of the existing network utilising spare capacity and deliver benefits in terms of reducing congestion on those parts of the network which are operating beyond design capacity.
- iii. Technology and innovation;
- 6.1.30 The Project does not incorporate proposals for technology and innovation, however some scope exists to incorporate advances in tolling technology (e.g. Open Road) as appropriate.
- iv. Pricing signals;
- 6.1.31 The implementation of road tolling across the New Bridge and SJB is proposed which will contribute to both the delivery of the New Bridge and exercise demand management.

v. Regulation and enforcement;

6.1.32 The proposed implementation of road tolling demand across the New Bridge will seek to manage cross-river travel demand.

vi. Changes to public transport services;

6.1.33 The physical improvements to the SJB will enable more reliable and frequent cross-river public transport services.

vii. Major infrastructure schemes

6.1.34 The New Bridge represents a major infrastructure project which will have a significant role in addressing the major problem of congestion around the SJB, and enhancing network resilience.

Compliance

6.1.35 The Project is considered to be in general compliance with the priorities for transport management and investment, as set out within draft policy RT10.

Mitigation and Residual Impacts

6.1.36 No mitigation measures are proposed, and no residual impacts arise which require review.

6.1.37 In addition to the key transport policies set out above, a number of other emerging RSS policies are also relevant to the Project, as outlined below:

Draft Policy DP3 – Promote Sustainable Economic Development

6.1.38 This policy focuses on supporting and promoting sustainable economic growth, in addition to reducing “*economic, environmental, education, health and other social inequalities between different parts of the North West, within the sub-regions, and at local level.*” The policy further seeks “*to close the gap in economic performance between the North West and other parts of the UK.*” The supporting text notes that supporting and promoting the region’s economy is key to improving quality of life.

Relevance

6.1.39 The Project will contribute towards sustainable economic growth in the region. It promotes sustainable economic development and it seeks to address social inequalities. The extent to which the proposals comply with the provisions of draft policy DP3 should therefore be considered.

Assessment

6.1.40 The Project will improve cross-river linkages between Runcorn and Widnes and thus enhance accessibility to jobs and services at a local, sub-regional and regional scale. The Project will also significantly enhance access to multi-modal transport networks, providing for increased regional, national and international trade opportunities.

6.1.41 The Project will have a positive influence on tackling social exclusion at a local level, delivering enhanced public transport, walking and cycle links across the SJB. The Project also has the potential to serve as a catalyst to the regeneration of Runcorn and Widnes, providing new employment opportunities at a local level.

- 6.1.42 The integrated approach to transport delivered by the Project will provide non-car owners with a reliable, safe and efficient means of cross-river access to employment opportunities and services which is not currently available to them.

Compliance

- 6.1.43 The Project is considered to be in general compliance with the provisions of draft policy DP3.

Mitigation and Residual Impacts

- 6.1.44 The Project is considered to be in accordance with the provisions of draft policy DP3. No mitigation measures are therefore proposed, and no residual impacts will arise for review.

Draft Policy DP4 – Making the Best Use of Existing Resources and Infrastructure

- 6.1.45 This policy affords priority “to developments in locations consistent with the regional and sub-regional spatial framework” as set out in draft policy DP4 and sub regional policies which:

- a. build upon existing concentrations of activities and existing infrastructure;
- b. do not require major investment in new infrastructure, including transport, water supply and sewerage. Where this is unavoidable development should be appropriately phased to coincide with new infrastructure provision.

Relevance

- 6.1.46 The Project will utilise existing infrastructure and will serve a range of existing and proposed developments. The extent to which the proposals comply with the provisions of draft policy DP4 should therefore be considered.

Assessment

- 6.1.47 The New Bridge, as well as providing new transport infrastructure to serve existing development at a local, regional and sub-regional level, has the potential to serve as a catalyst to the regeneration of Runcorn and Widnes. Whilst representing major new investment, the Project is essential to remove significant congestion around a key regional transport corridor, and deliver significant economic, social and environmental benefits to the region.

- 6.1.48 The Project will also maximise the potential of existing road infrastructure through modifications to the SJB, comprising new public transport, walking and cycling cross-river linkages, each providing efficient and reliable alternatives to the private car.

Compliance

- 6.1.49 The Project is considered to be in general compliance with the relevant provisions of draft policy DP4.

Mitigation and Residual Impacts

- 6.1.50 The Project is considered to be in accordance with the provisions of draft policy DP4. No mitigation measures are therefore proposed, and no residual impacts will arise for review.

Draft Policy DP5 – Manage Travel Demand; Reduce the Need to Travel, and Increase Accessibility

- 6.1.51 This policy requires development to “be located so as to reduce the need to travel, especially by car, and to enable people as far as possible to meet their needs locally.” Further to this, policy

encourages “a shift to more sustainable modes of transport for both people and freight” in addition to an integrated approach to managing travel demand and improving road safety.

- 6.1.52 Policy also promotes “safe and sustainable access for all, particularly by public transport, between homes and employment and a range of services and facilities.” The supporting text states that such principles of draft policy DP5 reflect the transport objectives and policies of RSS, which in turn have influenced the distribution of housing and economic development.

Relevance

- 6.1.53 The principles of draft policy DP5 are relevant to the Project by virtue of the transport nature of the development proposals. The extent to which the Project satisfies the requirements of this policy should therefore be considered.

Assessment

- 6.1.54 The SJB proposals re-allocate road space to pedestrians and cyclists, in addition to providing an enhanced cross-river route for public transport. The Project therefore addresses the need to provide safe and sustainable access for all between Runcorn and Widnes. These proposals promote the use of more sustainable modes of transport in line with the principles of draft policy DP5.

- 6.1.55 The Project will deliver enhanced road safety by way of the following:
- a. Relieving congestion across and around the SJB by virtue of the proposed de-linking of this with the Weston Point and Bridgewater Expressways, and the eastern Widnes Eastern by-pass. Chapter 16 of the ES advises that on the opening of the Project, the level of traffic on the SJB will be reduced by about 80%;
 - b. Implementation of modern highway provision across the New Bridge;
 - c. Downgrading of the SJB to prioritise local traffic alongside public transport, walking and cycle links, and encourage increased numbers of non-car journeys. The SJB will be accessible for people with disabilities through measures such as dropped kerbs, tactile paving, and safe crossing provisions; and
 - d. Incorporation of improved junction configuration along the whole length of the New Bridge from Speke Road in the north to J12 of the M56 to the south.

Compliance

- 6.1.56 The Project is considered to be in compliance with the provisions set out within draft policy DP5.

Mitigation and Residual Impacts

- 6.1.57 No mitigation measures are proposed, and no residual impacts will arise for review.

Draft Policy DP7 – Promote Environmental Quality

- 6.1.58 This policy seeks to protect and enhance the quality of the environment (including air and water), especially by:
- a. understanding and respecting the character and distinctiveness of places and landscapes;
 - b. promoting good quality design in new development and ensuring that development respects its setting taking into account relevant design requirements, the NW Design Guide and other best practice;

- c. reclaiming derelict land and remediating contaminated land for end-uses to improve the image of the region and use land resources efficiently;
- d. maximising opportunities for the regeneration of derelict or dilapidated areas;
- e. assessing the potential impacts of managing traffic growth and mitigating the impacts of road traffic on air quality, noise and health;
- f. promoting policies relating to green infrastructure and the greening of towns and cities;
- g. maintaining and enhancing the tranquillity of open countryside and rural areas;
- h. maintaining the quantity and quality of biodiversity and habitat, ensuring that plans, strategies and proposals which alone or in combination could have a significant effect on the integrity and conservation objectives of sites of international importance for nature conservation are subject to assessment, this includes assessment and amelioration of the potential impacts of development (and associated traffic) on air quality, water quality and water levels.

6.1.59 In the pursuit of sustainable development demands, the accompanying text notes that policies on the environment, waste and energy cross-cut the thematic policies on transport.

Relevance

6.1.60 Given the nature of the Project and its impact on the wider area, the objectives of draft policy DP7 are considered relevant to the development proposals. The extent to which the Project satisfies these objectives should therefore be considered.

Assessment

6.1.61 An assessment of the Project against the principles expressed within draft policy DP7 is set out below:

- i. Understanding and respecting the character and distinctiveness of places and landscapes;

6.1.62 The ES exercise has undertaken a full review of the Project in respect of existing buildings, townscape and landscape features and concludes that no material impact would arise. In respect of the two listed bridge structures (SJB and Aethelfleda) the main bridge structure is considered to be in keeping with and capable of being readily accommodated within the grand scale of the estuary setting. No adverse impact is identified.

- ii. Promoting good quality design in new development and ensuring that development respects its setting taking into account relevant design requirements, the NW Design Guide and other best practice;

6.1.63 The Project will represent a modern road facility designed to accord with current standards. The scheme design has sought to incorporate an innovative approach to architecture through the lightness of cabling and structure, and choice of materials. The intention is that the architectural merit of the proposals will allow for the bridge to become regarded as an iconic structure in its own right within the Estuary setting, set alongside the Silver Jubilee Bridge and Aethelfleda Railway Bridge.

- iii. Reclaiming derelict land and remediating contaminated land for end-uses to improve the image of the region and use land resources efficiently;

6.1.64 The route alignment will incorporate contaminated land uses from former chemical works in Widnes, more recent land uses at the Astmoor Industrial Estate and the saltmarshes in Widnes and Runcorn. Reclamation/decontamination works are carried out to ensure the safety and health of people and the environment on and around the land. The incorporation of this land

within the proposed alignment of the Project is considered to represent good practice in accordance with the Government's sustainability objectives set out in PPS1 bringing underused land back into beneficial use. This will also contribute towards the enhancement and visual appearance of the local area.

iv. maximising opportunities for the regeneration of derelict or dilapidated areas;

6.1.65 The Project route corridor will incorporate areas of vacant and derelict land to be permanently lost as a result of the development proposals. The Project will also serve as a catalyst to the regeneration of Southern Widnes and Runcorn.

v. assessing the potential impacts of managing traffic growth and mitigating the impacts of road traffic on air quality, noise and health;

6.1.66 The Project may generate air quality impacts during the construction phase of development, albeit these are considered to be negligible. At operation, the proposal is not identified to have a significant impact upon local air quality and it is therefore concluded that emissions will fall with the AQS thresholds.

6.1.67 The Project will generate noise pollution during construction and operation. However, at operation the Project will create overall benefits with regards to the number of people likely to be bothered by road traffic noise. In addition, the route corridor will not create adverse noise impacts on future residential sites allocated within the Halton UDP.

6.1.68 The Project will deliver health benefits through a reduction of carbon emissions at those locations around the SJB. The proposed modifications to SJB will also encourage increased levels of cross-river walking and cycling.

vi. promoting policies relating to green infrastructure and the greening of towns and cities;

6.1.69 The Project will result in the loss of allocated recreational greenspace. There are no proposals for the creation of compensatory areas of greenspace within the route alignment, or elsewhere within Halton Borough.

vii. maintaining and enhancing the tranquillity of open countryside and rural areas;

6.1.70 The Project passes largely through urban areas within Runcorn and Widnes and, as such, this policy objective is not directly applicable. The New Bridge does however cross the Mersey Estuary, which whilst not formally allocated as open countryside or a rural area, does retain an open and tranquil setting in the form of the saltmarsh areas, the river and Wigg Island Local Nature Reserve (LNR). The Landscape and Visual Amenity assessment advises that the presence of the proposed new road infrastructure in what is currently a tranquil area of the Estuary is detrimental, and the exposure to views of the carriageway and the associated activity will be significant. However, the physical works will not materially limit the opportunity that the Estuary provides for continued access to the open countryside by the urban population. An identified advantage is that the height of the deck and the openness of the viaduct will take traffic out to normal lines of sight at close range. In addition the existing mature tree cover will also help to integrate the New Bridge with the landscape, whilst the proposals will provide the opportunity for land enhancement.

viii. maintaining the quantity and quality of biodiversity and habitat, ensuring that plans, strategies and proposals which alone or in combination could have a significant effect on the integrity and conservation objectives of sites of international importance for nature conservation

are subject to assessment, this includes assessment and amelioration of the potential impacts of development (and associated traffic) on air quality, water quality and water levels.

- 6.1.71 The ES has considered the potential impacts of the Project on the integrity of the Middle Mersey Estuary, given its status as a European Site by virtue of the Habitats Regulations. The conclusion in Chapter 10 of the ES is that the Project will not adversely affect the integrity of a European Site, after mitigation and other measures have been taken into consideration. It has also been identified that the Project will generate only minor effects on biodiversity within the study area during construction. Subject to mitigation and an assessment of residual impacts, it is not considered that the Project will have any significant adverse impacts at operation.

Compliance

- 6.1.72 The Project will bring about environmental benefits in terms of air quality and noise quality, and contribute to the redevelopment of derelict and vacant and within the route corridor. The Project is therefore considered to be in general compliance with the policy provisions of DP7.

Mitigation and Residual Impacts

- 6.1.73 No mitigation measures are proposed, and no residual impacts arise for review.

Draft Policy DP9 – Reduce Emissions and Adapt to Climate Change

- 6.1.74 This policy states that proposals and schemes should contribute towards the regional priority of reducing carbon dioxide and other greenhouse gas emissions from all sources. Policy notes that measures to reduce emissions include “*reducing traffic growth, promoting walking, cycling and public transport.*” The accompanying text expresses the significant role of spatial planning in reducing emissions.

Relevance

- 6.1.75 The objectives set out in draft policy DP9 are of direct relevant to the Project given its transport characteristics. The extent to which the Project satisfies these objectives should therefore be considered.

Assessment

- 6.1.76 The modifications to SJB and the New Bridge seek to re-allocate road space to pedestrians and cyclists, and provide enhanced cross-river public transport linkages between Runcorn and Widnes. In addition, the Project seeks to reduce traffic growth in the form of the tolling structure. The air quality assessment undertaken as part of the ES has indicated that there would be no exceedence of the relevant Government objectives for local air quality in 2015 as a result of the Project. The effect of the Project on climate change has been determined through an assessment of changes in carbon dioxide levels on regional air quality. This assessment has indicated that levels of carbon dioxide are anticipated to decrease overall with the Project in place, mainly as a result of changes to traffic flow patterns that are anticipated across the New Bridge. As a result, the Project is considered to be in line with the provisions of draft policy DP9.

Compliance

- 6.1.77 The Project complies with the objectives of reducing emissions through the management of traffic growth and the promotion of greener modes of transport including walking, cycling and public transport.

Mitigation and Residual Impacts

- 6.1.78 No mitigation measures are proposed, and no residual impacts will arise for review.

Draft Policy RDF1 – Spatial Priorities

- 6.1.79 This policy affords priority for growth and development in the following order: (a) the regional centres of Manchester and Liverpool; (b) the inner areas surrounding these regional centres; and (c) other towns and cities, including Runcorn and Widnes. The accompanying text states the importance of influencing the public transport framework and transport investment priorities.

Relevance

- 6.1.80 The spatial priorities of draft policy RDF1 are of relevance given that the Project will have an impact upon shaping future growth and regeneration at a local and regional level. The extent to which the Project satisfies the provisions of this policy should therefore be considered.

Assessment

- 6.1.81 The Project will deliver efficient and reliable transport links directly connecting Widnes and Runcorn. The development of the New Bridge will serve as a catalyst for the proposed regeneration of Southern Widnes and Runcorn, and will stimulate the development of disused and vacant land within Southern Widnes. This will help to deliver significant economic benefits at a local and sub-regional level, increasing access to a broad range of employment opportunities requiring varying degrees of skills levels, and key services to broaden consumer spending within the wider Liverpool City-Region.
- 6.1.82 The Project has the ability to provide an iconic structure, becoming a symbol of the Borough and enhancing its external image both nationally and globally. Access to markets, international connectivity, skilled labour and transport within urban areas are recognised as key factors influencing business location and investment. The Project has the ability to improve market access, as well as journey accessibility and reliability to key regional transport nodes, including Liverpool John Lennon Airport and Manchester International Airport.

Compliance

- 6.1.83 The Project is in general compliance with the provisions of draft policy RDF1.

Mitigation and Residual Impacts

- 6.1.84 No mitigation measures are proposed, and no residual impacts will arise for review.

Draft Policy RDF3 – The Coast

- 6.1.85 This policy seeks to “*enhance the economic importance of the coast and the regeneration of coastal communities.*” The supporting text refers to the complex and evolving nature of the coastal area given that it comprises a broad range of assets, uses and economic activity.

Relevance

- 6.1.86 The New Bridge spans the Upper Mersey Estuary, incorporating land at its proposed northern and southern abutments. Although the wording of draft policy RDF3 is directed more towards coastal areas rather than estuary locations, and a number of the elements are not relevant to the Project, the extent to which the Project will enhance the economy of the region’s coastal area should be considered.

Assessment

- 6.1.87 The Project will enhance the economic importance of this coastal area by improving cross-river accessibility and, in turn, attracting investment and prompting regeneration. The coastal area comprises local communities which will benefit from the improved access to employment opportunities and services at a local and sub-regional level.
- 6.1.88 With regards to the physical impacts of the Project on the coastline, the Hydrodynamics assessment of the ES advises that the Project will not have a significant effect upon the hydrodynamics and morphology of the Mersey Estuary in excess of the naturally occurring rate of change, nor increase the risk of fluvial and coastal flooding.

Compliance

- 6.1.89 As far as draft policy RD4 is relevant to the proposals, the Project is in compliance and therefore no conflict arises.

Mitigation and Residual Impacts

- 6.1.90 Whilst no direct impact and consequently no mitigation measures are proposed, the Hydrodynamics assessment recommends the monitoring of the coastline during the construction phase and the first five years of the operation to provide further understanding of the estuarine system.

Draft Policy W1 – Strengthening the Regional Economy

- 6.1.91 This policy encourages plans and strategies to promote opportunities for economic development which will strengthen the economy of the North West. Policy states that a key objective of this is “ensuring the safe, reliable and effective operation of the region’s transport networks and infrastructure in accordance with the policies and priorities of the regional transport policies.” Policy objectives also seek to build on the region’s strengths by “linking areas of opportunity and need.”

Relevance

- 6.1.92 The Project seeks to facilitate safe, reliable and efficient cross-river movements between Runcorn and Widnes, and the wider Liverpool City Region. The Project will also improve linkages between areas of opportunity and need. The proposals are directly relevant to these elements of the policy, and the provisions of this policy should be taken into account in any assessment.

Assessment

- 6.1.93 The Project will provide efficient cross-river vehicular movements through the delivery of new high-quality road infrastructure. This will relieve the current levels of road congestion and delays around the SJB and its main approaches, as well as providing network resilience – regional transport will be less reliant on congested and vulnerable links. In addition, the Project will deliver enhanced public transport, walking and cycling connections between Runcorn and Widnes. A series of measures are also proposed to enhance local and sub-regional road safety standards, including:
- a. Relieving congestion across and around the SJB by virtue of the proposed de-linking of this with the Weston Point and Bridgewater Expressways, and the eastern Widnes bypass. The defunct highways land arising from this will form part of the regeneration proposals for Southern Widnes set out in the Regeneration Strategy for the area;

- b. Implementation of modern provision across the New Bridge; and
 - c. Downgrading of the SJB to comprise local traffic, public transport, walking and cycle links.
- 6.1.94 In addition to these road-based measures, the Project will deliver economic benefits locally, sub-regionally and regionally.
- 6.1.95 In terms of increasing domestic and international trade, the Project will improve linkages to the following:
- a. Liverpool John Lennon Airport;
 - b. Port of Garston;
 - c. Port of Liverpool; and
 - d. Port of Weston (planned).
- 6.1.96 Improved accessibility and enhanced journey reliability are expected to influence developer and investor perception and locational decisions in areas close to and well served by the New Bridge.

Compliance

- 6.1.97 The Project is considered to be in compliance with the provisions of draft policy W1 where this is relevant to the proposals.

Mitigation and Residual Impacts

- 6.1.98 The Project is considered to be in accordance with the relevant objectives of draft policy W1. No mitigation measures are therefore proposed, and no residual impacts arise for review.

Draft Policy EM1 – Integrated Enhancement and Protection of the Region’s Environmental Assets

- 6.1.99 This policy seeks the delivery of “*an integrated approach to conserving and enhancing the landscape, natural environment, historic environment and woodlands of the region.*” Policy requires proposals and schemes affecting such environmental land assets to seek “to avoid loss or damage to the assets, then seek to mitigate any unavoidable damage and where appropriate compensate for loss or damage through offsetting actions.”

Relevance

- 6.1.100 The Project has the potential to impact upon the region’s environmental land assets. The proposals should therefore be assessed in accordance with the objectives of draft policy EM1.

Assessment

- 6.1.101 The assessment in Chapter 12 has been undertaken to assess the potential visual impacts of the Project upon the natural environment. The proposed alignment of the New Bridge is situated approximately 1.8km to the east of existing listed infrastructure, including the SJB and Aethelfleda Railway Bridge. The Landscape and Visual Amenity assessment (Chapter 12) of the ES advises that the New Bridge would be appropriate within its setting, given the scale of the estuary location and the intrinsic design merits of the Project, and has the potential to be considered as a beneficial major landmark feature of the Mersey Valley.
- 6.1.102 With regards to the impacts of the Project on the natural environment, the findings of Chapter 11 (Aquatic Ecology) have demonstrated that the Project has the potential to affect existing freshwater watercourses within the study area during construction and operation. The

Terrestrial and Avian Ecology assessment (Chapter 10) has recognised that the Project will generate only minor effects on biodiversity within the study area during construction. No adverse effects arising from the Project upon the integrity of the European Site have been identified.

- 6.1.103 The Cultural Heritage assessment (Chapter 13) advises that the New Bridge will inevitably change the current setting of the SJB and Aethelfleda Railway Bridge. The affect of the New Bridge on the historic environment is however considered to be of low negative significance.
- 6.1.104 The Project will cause localised but fairly limited losses of woodland habitat at Wigg Island during the construction of the four pairs of piers and associated bridgeworks. However, most of the effects arising from the Project are temporary, and can be suitably mitigated through a programme of compensatory tree and shrub planting.

Compliance

- 6.1.105 The effect of the New Bridge on the setting of the SJB and Aethelfleda Railway Bridge is acknowledged. However, the harm is considered to be limited and the Project has intrinsic landscape benefits. On this basis, the proposals are considered to generally accord with the provisions of draft policy EM1.

Mitigation and Residual Impacts

- 6.1.106 To protect the existing historic and conservation value associated with the existing listed buildings within the local area, the proposed alignment of the New Bridge is sited away from this existing historic infrastructure where possible to minimise its impact upon existing vistas. The Landscape and Visual Amenity assessment (Chapter 12) proposes a range of landscaping measures to minimise the visual impacts of the New Bridge on the historic environment where possible.
- 6.1.107 To minimise the ecological impacts of the New Bridge, appropriate mitigation measures have been identified in the assessments at both construction and operational phases of development within Chapter 11 and Chapter 10 of the ES to minimise the impacts of the New Bridge in accordance with the approach advocated in policy EM1. No residual impacts associated with the Project are envisaged post mitigation.

Draft Policy EM3 – Green Infrastructure

- 6.1.108 This policy places clear emphasis upon the delivery of “*wider spatial outcomes that incorporate environmental and socio-economic benefits*” by:
- e. Conserving and managing existing green infrastructure;
 - f. Creating new green infrastructure;
 - g. Enhancing its functionality, quality and connectivity.
- 6.1.109 Draft policy EM3 refers to the need to improve access to open spaces by disadvantaged groups and communities. Policy further requires “*proposals to improve green infrastructure in the delivery of new developments, particularly through area based regeneration initiatives and major proposals and schemes.*”

Relevance

- 6.1.110 The proposed alignment of the Project will result in the permanent loss of allocated greenspace at St. Michaels Golf Course to accommodate the toll plaza infrastructure, and at Widnes Warth salt marshes, to accommodate the New Bridge piers. The extent to which the proposals will

provide new green infrastructure in the form of greenspace provision should therefore be considered.

Assessment

- 6.1.111 The extent of greenspace to be lost to the Project amounts to c. 24ha, out of a total area of greenspace within the corridor of c. 220ha. This equates to a loss of c. 10%. Within Halton Borough, there is 1, 601 ha of designated greenspace. The loss of greenspace through the Project equates to a total percentage loss of 1.4% of overall designated greenspace provision within the Borough. Overall, this is considered to represent a minimal loss of green space within the wider context.
- 6.1.112 The Project does not comprise proposals for compensatory green infrastructure within the route corridor, or elsewhere within Halton Borough.

Compliance

- 6.1.113 The Project will result in the loss of allocated greenspace and there are no proposals for the creation of new green infrastructure within the scheme alignment, or elsewhere within Halton Borough. The Project does not propose the enhancement of existing green infrastructure. Overall, however, there is not considered to be a deficiency of green space provision with Halton Borough.

Mitigation and Residual Impacts

- 6.1.114 No mitigation measures for the proposed loss of existing green space are proposed as part of the Project.

Draft Policy EM5 – Integrated Water Management

- 6.1.115 This policy outlines the requirement to protect the quantity and quality of surface, ground and coastal waters, and manage flood risk. As part of this, policy requires new development (including transport development) “to incorporate sustainable drainage systems and water conservation and efficiency measures to the highest contemporary standard.” The accompanying text states that the region’s current and future flood risks must further be managed in a sustainable way to avoid potential damage to property and human life.

Relevance

- 6.1.116 The Project will be situated within an identified area of flood risk. The development proposals will also be required to incorporate drainage systems. The extent to which the Project accords with the requirements of draft policy EM5 should therefore be assessed.

Assessment

- 6.1.117 The Project has been identified within the ES as having the potential to impact upon local water quality standards during construction and operation. Suitable mitigation measures have therefore been considered 5 to minimise the extent and risk of pollution upon watercourses and water quality within the study area. It is considered that the potential effects on groundwater from the construction and operation of the Project can be mitigated although there are existing effects on groundwater quality that will have to be considered as part of the overall remediation strategy.
- 6.1.118 A Flood Risk Assessment of the Project has been undertaken in accordance with the provisions of national planning policy set out in PPS25. This has identified existing areas of flood risk

within the route corridor and its immediate surroundings, including all existing surface watercourses. An inspection of existing highway drainage systems has revealed that there is no water attenuation of highway run-off. There is essentially no buffering effect of water discharge from the highway and so discharges to watercourses comprise relatively high volumetric flow rates. The proposed highway drainage would incorporate water attenuation so that highway runoff would be released at a low flow rate over a longer period of time. There should be a net benefit with respect to flood-risk due to water attenuation.

- 6.1.119 Existing highways drainage arrangements along the route corridor will continue to be used where possible. At locations along the route corridor, surface water run-off from the carriageway will be collected and discharged into balancing ponds.

Compliance

- 6.1.120 The net effect of the Project on flood risk is considered to be negligible. The level of current flood risk is predicted to remain unaltered following the proposed development. The proposed surface water drainage systems will also ensure that there is no increase in the risk of flooding within the study area and within the surrounding catchment areas. The Project is identified as having the potential to impact on water quality during construction and operation. Mitigation is therefore proposed to minimise these impacts.

Mitigation and Residual Impacts

- 6.1.121 To minimise the impacts of development on groundwater quality, mitigation measures are proposed at three stages of the Project – Design, Construction and Operation. Measures include options for remediation together with the need for ongoing monitoring of groundwater levels and quality during the construction and operation stage. In addition, a range of mitigation measures can be applied through “management techniques” and “physical techniques” to minimise the impacts of development upon surface water quality. Post mitigation, no significant residual impacts have been identified.

Draft Policy LCR3 – Outer part of the Liverpool City Region

- 6.1.122 The aims of this policy ensure that plans and strategies within the outer part of the Liverpool City Region will focus economic development within, among other town and cities, Runcorn and Widnes. This policy seeks to maintain and enhance the roles of Runcorn and Widnes in terms of retail, access to amenities, jobs and services. The supporting text highlights the economic potential of developing the River Mersey’s frontage.

Relevance

- 6.1.123 The Project is located within the outer part of the Liverpool City Region. The extent to which it will achieve the aims of draft policy LCR3 should therefore be considered.

Assessment

- 6.1.124 The Project will facilitate the creation of enhanced public transport, walking and cycle links across the SJB, linking Runcorn and Widnes with the inner part of the Liverpool City Region. In particular, this integrated approach will provide non-car owners with a reliable, safe and efficient means of cross-river access to employment opportunities and services not currently available. The planned regeneration of Runcorn and Southern Widnes at the frontage of the Estuary and the growth of the local economy will also broaden the employment and services base at a local level.

- 6.1.125 It is expected that the Project will deliver new employment opportunities within both Widnes and Runcorn, and the wider sub-region. Improved multi-modal accessibility and enhanced journey reliability are also expected to influence developer and investor perceptions of areas close to and well served by the Project and generate new opportunities for domestic and international trade.

Compliance

- 6.1.126 The Project will contribute to the regeneration of Southern Widnes and Runcorn in line with the emerging SPD for the area. This will deliver new employment opportunities at a local level, and enhance accessibility to jobs and key services at both a sub-regional and regional scale.

Mitigation and Residual Impacts

- 6.1.127 No impact arises. No mitigation measures are therefore proposed so no residual impacts arise for review.

6.2 Halton Unitary Development Plan (2005)

The Halton UDP was adopted in April 2005. Whilst not identified in the adopted plan, Wigg Island was subsequently designated as a Local Nature Reserve. Given the proposed alignment of the Project which oversails Wigg Island, this policy is therefore directly relevant to the Project, and was not considered in the ES.

Policy GE20 Local Nature Reserves

- 6.2.1 This policy states that “*development will not be permitted if it is likely to have an unacceptable impact on existing and proposed Local Nature Reserves.*” The accompanying text states that the objectives in designating sites as Local Nature Reserves relate to conservation, through better management and the passing of bye-laws, recreation and education.

Relevance

- 6.2.2 The western part of Wigg Island Local Nature Reserve (LNR) is oversailed by the New Bridge. Wigg Island is being managed for wildlife and is of increasing importance for its developing woodland and associated habitats, including butterflies, birds and other fauna of note. The extent of any impacts arising from the Project on the habitat conservation of Wigg Island should therefore be considered.

Assessment

- 6.2.3 Construction effects on Wigg Island will cause localised but fairly limited losses of woodland habitat during the construction of the four pairs of piers and associated bridgeworks. Although the woodland losses are likely to be fairly small, they will be significant because they are part of a managed Local Nature Reserve for which a Management Plan has been prepared and is in the course of implementation. Construction disturbance will inevitably affect breeding and other birds as a result of the movements of machines and delivery of construction materials. There will also be construction activities overhead which are likely to disturb tree canopy birds.
- 6.2.4 Chapter 10 of the ES advises that the presence of the New Bridge will result in significant shading by the bridge deck, and interception of rainfall which will cause soil dryness and a reduction in the growth of vegetation. There will be changes in the species composition of the vegetation, with shade-tolerant species being at an advantage. However the combined effects of shading and droughting of the soils will prevent the continued development of the woodland communities developing on those parts of Wigg Island that will be affected by the New Bridge.

- 6.2.5 The assessment goes on to find that the important invertebrate fauna of Wigg Island, particularly the important populations of butterflies, will be reduced but to a minor and probably temporary extent only. The existence of the bridge will make woodland beneath or in close proximity to the bridge unfavourable and probably unsuitable habitat. Bird species which nest on the ground or in scrub are unlikely to be greatly affected by the presence of the bridge structure or by overhead traffic, particularly after a period of habituation.

Compliance

- 6.2.6 The Project will affect the designated Wigg Island LNR during construction and operation, as set out above. However, through enhancement and improvements to existing and proposed habitats the overall effects of the Project will be to deliver substantive benefits to nature conservation in the areas of Wigg Island Community Park / LNR.

Mitigation and Residual Impacts

- 6.2.7 Most of the construction effects arising from the Project on Wigg Island LNR are temporary and can be mitigated satisfactorily by the treatment of disturbed ground and by replanting of woody vegetation and grassland. Chapter 10 of the ES identifies that there should also be an annual monitoring survey of tree growth and tree health, and the need for pruning treatments to maximise the height increase of the trees and the overall density of the tree belt as an effective screen. Consideration should also be given to the planting of belts of similar fast-growing tree species at greater distances from the Bridge alignment to achieve a screening effect at lower tree height, as influenced by the angle of vision.
- 6.2.8 Another factor to take into consideration is the long-term potential of Wigg Island LNR. Chapter 10 advises that in the long-term, and on the cessation of tipping at Randle's Island Landfill Site, there is the potential for further habitat creation and enlargement of the LNR. The long-term potential for nature conservation at Astmoor and Wigg Island should be recognised in addition to its existing interests. There is therefore an ever increasing need to screen the New Bridge crossing of the LNR by tree planting to reduce the visual effects on the Nature Reserve.

7. REVISED EFFECT ASSESSMENT (CHANGES TO DRAFT RSS)

7.1 Aquatic Ecology

7.1.1 As outlined in Section 6 above some slight changes to the Draft Regional Spatial Strategy (RSS) for the North West of England were proposed in March 2008.

7.1.2 Of relevance to the Aquatic Ecology Chapter two changes have been noted:

- a. Draft Policy DP7 - Promote Environmental Quality, is new proposed policy. This policy aims to protect and enhance the quality of the environment. Among other requirements it states this should be achieved by promoting good quality design in new development, and ensuring any development respects its setting. Of particular relevance is the requirement to maintain the quality and quantity of biodiversity and habitat, and to ensure that proposals which could impact on the integrity and conservation objectives of sites of international importance for nature conservation are subject to assessment.

7.1.3 Consideration of this new proposed policy does not change any of the conclusions of the Aquatic Ecology Ecological Assessment.

- a. Draft Policy RDF3 - The Coast. This policy was in the January 2006 Draft RSS and the only change is the numbering of this policy from RDF4 to RDF3. See Section 4.3.14 of Aquatic Ecology Chapter for details of this policy.

7.1.4 The Addendum to the Environmental Statement also indicates a further policy that should be considered from the Halton Unitary Development Plan (see Section 11.4.47-11.4.55 of Aquatic Ecology Chapter) following clarification from Halton Borough Council that Wigg Island is a Local Nature Reserve. See below:

- a. Policy GE20 - Local Nature Reserves. This policy states that 'development will not be permitted if it is likely to have an unacceptable impact on existing and proposed Local Nature Reserves'.

7.1.5 Impacts on saltmarsh scrapes on Wigg Island were assessed within the Aquatic Ecology Chapter and consideration of this policy does not change any of the conclusions of the Aquatic Ecology Ecological Assessment.

8. SOCIO ECONOMIC ASSESSMENT

Introduction

- 8.1.1 Changes have been made to the European Structural Funding international policy context which covers Halton and the surrounding area (i.e. Greater Merseyside). Merseyside is no longer listed under the highest level of funding; Objective 1. European Structural Funding under the Northwest European Regional Development Fund (ERDF) Programme 2007-2013, provides a single ERDF Programme for the Northwest, known as the Northwest Operational Programme (NWOP). Funding is outlined by the North West Competitiveness Operational Programme 2007-2013. The NWOP provides the structure to achieving the ERDF targets which include; creating 26,700 net additional jobs, improving the region's annual Gross Value Added (GVA) by £1.17 billion and a 25% reduction in additional CO₂ emissions generated from programme investments.

Construction Phase

- 8.1.2 Changes to employment opportunities have been identified which are likely to be available to local residents through construction of the Project. One third of employment opportunities generated by construction of the Project will be provided to local residents within the RAs and hinterland. This has reduced the number of job positions stated likely to be available to local residents in Chapter 20 of the ES at paragraph 20.7.24. Due to the fact that the magnitude of effect is reduced to moderate, the effect of a change in job opportunities available to local residents will be of moderate positive significance. Table 8.1 reflects the significance assessment presented in Table 20.21 of Chapter 20.

Table 8.1 – Effects Assessment taken from Chapter 20, Table 20.21

Report and Impact	Effect	Receptor and importance	Nature of Effect	Significance (High, Moderate, Low and Positive/Negative)	Mitigation & Enhancement Measures	Residual Significance (High, Moderate, Low and Positive/Negative)
	Construction Phase					
Chapter 20: SEIA Change in Employment Opportunities	Increase/decrease in job opportunities available to local residents	Appropriately skilled/qualified individuals seeking employment within Halton High Importance	Temporary High magnitude Short term Direct	High Positive	Provision of relevant training programmes within Halton prior to construction to ensure a greater skills pool within the area from which to resource.	High Positive

- 8.1.3 As a result of changes to employment opportunities the assessment presented in Table 8.1 is replaced by the revised assessment in Table 8.2.

Table 8.2 – Revised Residual Effects on Socio Economic Receptors

Report and Impact	Effect	Receptor and importance	Nature of Effect	Significance (High, Moderate, Low and Positive/Negative)	Mitigation & Enhancement Measures	Residual Significance (High, Moderate, Low and Positive/Negative)
	Construction Phase					
Chapter 20: SEIA Change in Employment Opportunities	Increase/decrease in job opportunities available to local residents	Appropriately skilled/qualified individuals seeking employment within Halton High Importance	Temporary Moderate magnitude Short term Direct	Moderate Positive	Provision of relevant training programmes within Halton prior to construction to ensure a greater skills pool within the area from which to resource.	Moderate Positive

Operational Phase

8.1.4 It has been identified that adverse effects noted to pedestrians and cyclists undertaking non cross river trips can be eliminated. No further enhancement measures are provided by the SEIA to enhance those measures outlined in the Transport Chapter. The revised assessment to the 'disruption and closure of footpaths and cycleways' is provided below. Table 8.3 presented the original effects assessment provided in Table 20.21 of Chapter 20 of the ES.

Table 8.3 – Effects Assessment taken from Chapter 20, Table 20.21

Report and Impact	Effect	Receptor and importance	Nature of Effect	Significance (High, Moderate, Low and Positive/Negative)	Mitigation & Enhancement Measures	Residual Significance (High, Moderate, Low and Positive/Negative)
	Operational Phase					
Chapter 20: SEIA Change in Access to Facilities and Social Networks	Disruption and closure of footpaths and cycleways.	Pedestrians and cyclists within Halton undertaking non cross River trips High Importance	Permanent Low magnitude Long term Direct	Low Negative	No mitigation measures recommended further to those detailed within the Transport Chapter 16.	Low Negative

8.1.5 As a result of changes to pedestrians and cyclists undertaking non cross river trips the effects assessment presented in Table 8.3 is replaced by the revised assessment in Table 8.4 below.

Table 8.4 – Revised Residual Effects on Socio Economic Receptors

Report and Impact	Effect	Receptor and importance	Nature of Effect	Significance (High, Moderate, Low and Positive/Negative)	Mitigation & Enhancement Measures	Residual Significance (High, Moderate, Low and Positive/Negative)
Operational Phase						
Chapter 20: SEIA Change in Access to Facilities and Social Networks	Disruption and closure of footpaths and cycleways.	Pedestrians and cyclists within Halton undertaking non cross River trips High Importance	Temporary Low magnitude Long term Direct	Moderate Positive	No mitigation measures recommended further to those detailed within the Transport Chapter 16.	Moderate Positive

9. WASTE

Introduction

- 9.1.1 Since the publication of the ES, waste throughput figures and landfill capacity levels in the North West region have been revised by the Environment Agency (EA). This section of the addendum captures how such changes to the baseline levels would effect the overall findings of the waste assessment set out in the ES.

Baseline

- 9.1.2 Following the issuing of the ES in March 2008, the EA have subsequently revised their waste figures to incorporate arisings and treatment/disposal methods that took place in 2006 (rather than the 2005 figures that were presented in the ES).

Landfill Capacity in the North West Region

- 9.1.3 The amount of available landfill capacity in the North West Region has actually risen compared to the figures outlined in the ES. The rate of annual consumption has also decreased, leading to a year-on-year reduction in the volumes sent to landfill.
- 9.1.4 Landfill capacity within the North West Region has actually increased from the 2005 levels. The total non-hazardous capacity (including inert) available within the region is approximately 91.7 million cubic metres, compared to 87.5 million cubic metres in 2005. Historic trends since 2001 has identified that there has been an average increase in landfill capacity of 4% per annum.
- 9.1.5 Total hazardous waste capacity (based on 2006) has decreased slightly, down by 43,000 cubic metres to 5.9 million cubic metres.

Table 9.1 – Latest Environment Agency Landfill Capacity Volumes (2006 Figures) for the North West Region (Figures in '000 m³)

Landfill Type	Sub-Region					NORTH WEST
	Cheshire	Cumbria	Greater Manchester	Lancashire	Merseyside	
Hazardous Merchant	2,103	-	-	297	3,480	5,880
Non Hazardous with SNRHW cell*	-	4,469	9,010	2,778	-	16,317
Non Hazardous	27,374	657	7,054	10,130	2,849	48,065
Non Hazardous Restricted	5,800	12	580	190	-	6,581
Inert	12,400	1,372	6,691	150	160	20,772
Total	47,677	6,509	23,395	13,545	6,489	97,615

Note: Since the 2005 waste data results were published, the sub-region of Halton & Warrington has been split, with the landfill capacity within Halton borough now incorporated into the above figures with Merseyside and the landfill capacity within Warrington borough now incorporated with Cheshire's figures.

Landfill Deposits in the North West Region

- 9.1.6 Overall landfill deposits in the North West Region actually decreased in 2006, falling from a level of 22.3 million tonnes in 2005 to around 21.8 million tonnes.
- 9.1.7 In 2005, 10.3 million tonnes of waste was deposited in the North West Regions' landfill sites. That figure has subsequently reduced by 12.5% in 2006, with the new level of deposits to landfill at 9.5 million tonnes (approximately 7.6 million cubic metres). Historic trends since 2001 have identified an average decrease in landfill deposits of 3% per annum. In relation to hazardous waste, 174,000 tonnes (approximately 139,200 cubic metres) was deposited in the region's landfills in 2006 (up from 127,629 cubic metres in 2005).
- 9.1.8 For non-hazardous waste, assuming a 'worst-case' scenario (originally identified in the ES at paragraph 15.16.12) that there will be no additional landfill capacity coming on line within the region and a growth rate of 2% per annum, the available capacity in landfills in the region (based on tonnages deposited in 2006) will have reduced to 43.6 million cubic metres by the start of the Project in 2011. By the end of the Project, this will have reduced to 25.1 million cubic metres. These figures are higher than the assumptions made based on the 2005 figures (which estimated 34 million cubic metres available for the start of the Project and 4.6 million cubic metres by the time the Project ends).
- 9.1.9 For hazardous waste, assuming a 'worst-case' scenario that there is a growth of hazardous waste requiring disposal in the North West region of, say 2% (which is based on the assumptions originally identified in the ES at paragraph 15.6.9), this would result in a consumption of approximately 0.88 million cubic metres of the regions' landfill capacity by the time the start of the Project in 2011, leaving an approximate capacity of 5.0 million cubic metres remaining within the regions' landfills. By the end of the Project, this will have reduced to 4.66 million cubic metres.

Treatment Facilities

- 9.1.10 In 2006, 12 million tonnes of waste was deposited at treatment facilities in the North West region (rather than landfill). This equates to an increase of 3.8% in the levels of waste deposits sent for treatment within the North West region in 2006 (based on the figures provided in the ES). The method of disposal through treatment (rather than landfill) is increasing year on year, and has seen an 18.5% increase in deposits since 2000/01.

Table 9.2 – Latest Environment Agency Figures (2006) of Waste Deposits sent to Treatment Facilities within the North West Region and the Total Combined within England and Wales (figures are in '000 tonnes)

Site Type		Site code	Region	ENGLAND AND WALES
			North West	
Transfer	Hazardous Waste	A9	1,683	8,818
	Household, Industrial and Commercial	A11	4,442	28,564
	Clinical	A12	5	142
	Non-biodegradable	A14	36	1,799
	Civic amenity site	A13	447	7,543
Transfer Total			6,614	46,866
Treatment	Material recovery	A15	423	5,924
	Physical	A16	892	14,700
	Physico-chemical	A17	1,224	2,097
	Chemical	A21	1	464
	Composting	A22	187	2,359
	Biological	A23	705	2,680
Treatment Total			3,432	28,224
Metal Recycling Site	Vehicle dismantler	A19	66	839
	Vehicle dismantler	A19a	83	332
	Metal recycling site	A20	1,785	10,363
Metal Recycling Site Total			1,934	11,534

Incineration

- 9.1.11 The total incineration capacity available within England and Wales has risen significantly in 2006, rising to 8.6 million tonnes per annum (compared to 6.6 million, based on the figures provided in the ES). Capacity within the North West region has only risen slightly (by 55,000 tonnes per annum) to a total regional capacity of 578,000 tonnes per annum. Throughput in the North West was at a level of 330,000 tonnes per annum, so there is capacity available at present to treat some of the waste arisings generated by the Project if it started tomorrow (although this may not be the case by the time the Project starts in 2011).

Construction Phase Effects

- 9.1.12 There would not be any changes in the scale of significance for any of the construction phase effects, as the waste arisings generated throughout the construction phase of the Project would remain the same, so would use up the same amount of landfill capacity as before. However, as the revised baseline figures have indicated a decrease in the rate of landfill consumption for the North West Region, the available landfill capacity anticipated by the time the construction phase of the Project commences will be higher than previously envisaged (identified in the baseline results presented in Chapter 15 of the ES in Table 15.3), so the regional landfill void space consumed by the waste generated by the Project as a percentage of total landfill capacity will be lower than before.

Operational Phase Effects

- 9.1.13 There will be no changes to the operational effects following the changes to the baseline data. As discussed in the baseline section of this addendum, although the amount of landfill capacity available within the region at the time of operation may be higher than earlier considered in the ES, the volumes of waste involved in the operational phase are not expected to change, so the effect on the consumption of landfill capacity would remain the same.
- 9.1.14 All other operational effects would remain the same as discussed in the original ES chapter.

Mitigation, Compensation, Enhancement and Monitoring

- 9.1.15 The revised baseline results presented in this addendum would have no effect on the mitigation measures proposed in Chapter 15 of the ES.

Residual Effects

- 9.1.16 There will be no change to the residual effects identified in Chapter 15 of the ES.

10. LANDSCAPE AND VISUAL EFFECT ASSESSMENT UPDATES

10.1 Additional Information

10.1.1 This section of the ES Addendum provides further and more detailed information to that included in the ES regarding visual effects measures that would occur as a result of the scheme and, in particular, noise attenuation measures now proposed. The information provided does not alter the analysis or the conclusions indicated in the ES but provides more detailed information further to substantiate the assessment and conclusions.

Information Content

10.1.2 The information contained in this section of the Addendum comprises:

- a. Minor modifications to some of the illustrative cross sections as a result of further information regarding the location and height requirements for noise attenuation barriers;
- b. A visualisation indicating the Widnes Loops Junction from a viewpoint on the Trans-Pennine Trail; and
- c. Night-time photographs of comparator examples of the night-time effects of lighting to provide an indication of the likely impacts of the Project on the night-time scene.

10.1.3 The purpose of providing the modified cross sections is to illustrate how the locations of noise barriers have been amended in response to additional predicted noise level information (see section 11.0 of this addendum). The additional visual information is further to assist the understanding of the assessment of the effects of lighting. It is very difficult to describe these effects precisely due to both the complexity of the effects of lighting and fact that the detailed design required to assess the effects would be undertaken at the next stage of design development as part of the remit for the concessionaire, who would construct the Project. It was therefore considered that the most effective means of providing an understanding of this aspect of the Project would be by means of actual, comparable situations.

Modifications to Illustrative Cross Sections

10.1.4 The following modifications to the illustrative cross sections (identified as Figures 12.18.1 to 12.18.6 in the ES) have been made:

- a. Figure 10.1 (corresponding to 12.18.2 in the ES) the height of the noise attenuation barriers has been amended from 1.2m to 2.4m in response to noise attenuation requirements identified as a result of additional predicted noise information. This increase in height does not alter the findings of the assessment;
- b. Figure 10.2 (corresponding to 12.18.5 in the ES) the barrier has been removed where adjacent bunding provides noise attenuation as the bunding is deemed to provide the required levels of noise attenuation. Therefore, the barrier is superfluous to requirements; and
- c. Figure 10.3 (corresponding to 12.18.6 in the ES) the barrier has been reduced from 2.4m to 2.1m which is all that is required for noise attenuation. Whilst this does not alter the assessment findings it does provide slight benefit in terms of reduced visual impact.

Widnes Loops Visualisation

10.1.5 Widnes Loops Junction represents one of the most substantive changes to the landscape of the estuary margins but presents one of the most significant opportunities for woodland scale improvements to the landscape structure of the degraded estuary margins. The photomontage

(Figure 10.4) illustrates the effects of the junction from a north facing viewpoint on the Trans-Pennine Trail.

- 10.1.6 Whilst the junction is a complex, multi-level arrangement of looping access roads and bridges (reference paragraph 12.7.81 of the ES), which occupies a large footprint, it cannot be seen in its entirety from available surrounding viewpoints. It is the visual change occasioned by the earthworks of the junction, the components of the highway and its structure, together with views of traffic on the visible outer sections of the loops that create impact.
- 10.1.7 The selected viewpoint from the Trans-Pennine Trail indicates one of the most prominent views of the Widnes Loops Junction from what is potentially one of the most well used areas of access in the vicinity of the junction. The viewpoint forms part of a sequence of unfolding views along the section of the Trail in which the junction would be prominent.
- 10.1.8 The sequence of photographs shows the existing situation, the substantial change and adverse effect of the impact of traffic at year one of operation and the beneficial effects of the landscape treatment after 15 years. The effectiveness of the woodland scale planting, described in paragraph 12.7.87 of the ES, in mitigating the impact of traffic and integrating the scale and geometry of the junction with its surroundings is demonstrated in this sequence of views, as is the manner in which the landscape scheme would contribute to improving the landscape structure of the estuary margins.

Night-time Images

- 10.1.9 The night-time images selected are:
 - a. The Dee Crossing Bridge (Figure 10.5) which illustrates the effects of lighting in an unlit estuary with urbanised margins;
 - b. A section of the M60 motorway (Figure 10.6) illustrating the effects of highway lighting on the urban surrounding; and
 - c. The toll plaza on the M6 Toll Road (Figure 10.7) which illustrates the night-time effect of a comparator toll plaza.
- 10.1.10 These images provide an indication of the range of situations on the Project where the effects of lighting would be most pertinent.
- 10.1.11 The images of the Dee Crossing have been selected to indicate the considerations of the effects of lighting the New Bridge as considered in the assessment which addressed:
 - a. the visual impact of lighting the highway carriageway surface using lighting columns with lanterns which direct the light onto the highway and restrict the amount of light spillage;
 - b. the impact of this directional lighting when viewed against the unlit estuary and the estuary margins. This is comparable to the views which the lighting on the New Bridge would be seen against and to an extent absorbed into. It also replicates similar existing urban and industrial lighting provision; and
 - c. light reflecting upon the bridge structure (both from the lighting upon it and from the adjacent urban areas) and the resultant 'sky-glow' effect of a combination of all these lighting factors on the linear nature of the structure.
- 10.1.12 The assessment of these effects is contained within paragraph 12.7.116 of the ES.
- 10.1.13 The photographs of the M60 have been selected to indicate the effects of lighting an urban highway scheme with a similar landscape context to the Project. The principle consideration is the effect of lighting which, although directed onto the carriageway, has a potential impact on

adjacent areas due to the height of the columns and residual effects of light spillage. The illustrations indicate how this can be restricted using contemporary technical solutions and, the relative containment of light within the highway corridor. The mitigating effects of the landscape scheme will further filter views of lighting and reduce the impact of lighting associated with road signage. The photographs of the M60 give an indication of the potential effects of lighting to the north of the estuary (reference paragraphs 12.7.97 and 12.7.98 of the ES) and to the south of the estuary (reference paragraphs 12.7.137).

10.1.14 The photographs of the M6 Toll Plaza have been included to illustrate the provision of lighting associated with both the approaches to the Toll Plaza and the plaza and its canopies. In this example there was a focus of lighting around the plaza with some lighting columns containing multiple lanterns. The illustrations are not totally representative of the provision on the Project in that the M6 Toll Road is not lit and the Plaza is a cluster of lighting in an unlit landscape, whereas the Project is both lit and the toll plazas are situated in urban locations where lighting is already present. There would however still be a concentration of lighting, which for all situations except on the A533 approach to the SJB (where space is restricted), is addressed through the provision of screen planting to mitigate impact.

Summary

10.1.15 In summary, the cross sections indicate the visual effects of noise attenuation measures in selected locations and the photographic images illustrate the manner in which lighting can be directed to reduce light spillage from the lighting units and focus the benefits of lighting onto the carriageway. The residual 'sky-glow' and night-time impact of the introduction of lighting, into the previously unlit scene, can also be ascertained. It is the consideration of these effects which have informed the assessment of night-time impact.

11. NOISE

Introduction

- 11.1.1 The purpose of this section of the ES addendum is to provide more detailed information than that included in the ES about the expected noise changes that would occur as a result of the scheme. It does not alter the analysis or the conclusions shown in the ES but provides more detailed information on which the main assessment and conclusion were based.
- 11.1.2 This additional information provides predicted noise levels at 12 locations selected as being representative of the various sections of the Project route. Also provided are contours illustrating the expected change in noise level due to the Project across the Project area.

Predicted noise levels

- 11.1.3 The area locations in the following tables are the same as those used in the ES and that are illustrated in Figures 17.7 to 17.15 of the ES. These were selected as being representative of sections of the route and are described in detail in paragraphs 17.5.34 to 17.5.43 of the ES.
- 11.1.4 Table 11.1 below shows the predicted noise levels in terms of the $L_{A10, 18hr}$ values, corrected to the nearest dB for specific locations within the various areas. The noise levels shown are those predicted without the introduction of any of the noise barriers mentioned in paragraph 17.8.17 of the ES as potential mitigation. It is proposed to construct noise barriers along the Central Expressway, as illustrated in Figures 17.7 and 17.8 of the ES, to mitigate the impact of the expected noise level increases. Consequently noise levels at these locations with the Project are anticipated to be at least 5 dB lower. The conclusions in the ES regarding the likely noise impact assumed the inclusion of such barriers.

Table 11.1 Predicted Noise Levels, $L_{A10,18hr}$, dB

Location	Area	Name	2006 Base	2015 DM	2015 DS	2030 DM	2030 DS
1	1	Speke Road	74	75	77	76	78
2	1	St Helen's Canal	56	57	63	57	64
3	2	Cholmondeley Street	72	73	66	73	67
4	3	Beside SJB in Mersey	72	73	66	73	67
5	4	Handley Street	61	61	55	61	56
6	5	Russell Street	72	73	66	74	67
7	5	Castner Avenue	73	74	67	75	68
8	6	Wigg Island	51	52	55	52	56
9	7	Commercial Property	50	51	61	51	62
10	8	South of Bridgewater Junction	58	59	66	60	67
11	9	Littlegate, nr Runcorn Spur Road	64	66	67	65	68
12	10	North of Weston Pont (Rocksavage) Expressway	67	68	68	68	69

Note DM = Do Minimum. DS = Do Something. DS levels are without noise barriers.

- 11.1.5 The above data have also been presented in terms of differences in noise level between the various scenarios to illustrate how noise levels are predicted to change in the future both with and without the Project. The results are shown in Table 11.2:

Table 11.2 Predicted Noise Levels Changes compared to Base Year, $L_{A10,18hr}$, dB

Location	Area	Name	2015 DM – 2006 Base	2030 DM – 2006 Base	2015 DS – 2006 Base	2030 DS – 2006 Base
1	1	Speke Road	+ 1	+ 2	+ 3	+ 4
2	1	St Helen's Canal	+ 1	+ 1	+ 7	+ 8
3	2	Cholmondeley Street	+ 1	+ 1	- 6	- 5
4	3	Beside SJB in Mersey	+ 1	+ 1	- 6	- 5
5	4	Handley Street	0	0	- 6	- 5
6	5	Russell Street	+ 1	+ 2	- 6	- 5
7	5	Castner Avenue	+ 1	+ 2	- 6	- 5
8	6	Wigg Island	+ 1	+ 1	+ 4	+ 5
9	7	Commercial Property	+ 1	+ 1	+ 11	+ 12
10	8	South of Bridgewater Junction	+ 1	+ 2	+ 8	+ 9
11	9	Littlegate, nr Runcorn Spur Road	+ 2	+ 1	+ 3	+ 4
12	10	North of Weston Pont (Rocksavage) Expressway	+ 1	+ 1	+ 1	+2

Note DM = Do Minimum. DS = Do Something. DS levels are without noise barriers (i.e. unmitigated).

- 11.1.6 It can be seen that there will generally be increases in noise levels of 1 or 2 dB in the future without the Project. As described in the ES, with the Project, there will be decreases of 5 or 6 dB on the SJB and Weston Point Expressway and increases of around 2 to 12 dB in the region of the New Bridge and Central Expressway route, compared to 2006.
- 11.1.7 As some of the increases shown in Table 11.2 that would arise from the Project would be in part due to natural growth in traffic with time, it is helpful to consider the differences in noise levels for 2015 and for 2030 both with and without the Project. These results, shown in Table 11.3, show the changes due to the Project alone.

Table 11.3 Predicted Noise Levels Changes in the Future, $L_{A10,18hr}$, dB

Location	Area	Name	2015 DS – 2015 DM	2030 DS – 2030 DM
1	1	Speke Road	+ 2	+ 2
2	1	St Helen's Canal	+ 6	+ 7
3	2	Cholmondeley Street	- 7	- 6
4	3	Beside SJB in Mersey	- 7	- 6
5	4	Handley Street	- 6	- 5
6	5	Russell Street	- 6	- 7
7	5	Castner Avenue	- 7	- 7
8	6	Wigg Island	+ 3	+ 4
9	7	Commercial Property	+ 10	+ 11
10	8	South of Bridgewater Junction	+ 7	+ 7
11	9	Littlegate, nr Runcorn Spur Road	+ 1	+ 3
12	10	North of Weston Pont (Rocksavage) Expressway	0	+ 1

Note DM = Do Minimum. DS = Do Something. DS levels are without noise barriers.

11.1.8 Table 11.3 clearly shows the noise impact of the Project with reductions in noise level along the relieved section of the route, SJB and Weston Point Expressway, and increases in noise levels along the route of the New Bridge and the Central Expressway. Noise levels adjacent to the Central Expressway will be reduced by at least a further 5 dB due to the installation of proposed road side barriers.

Noise Level Difference Contours

11.1.9 In order to illustrate the expected changes in noise levels, contour difference maps have been produced to provide a strategic overview of the anticipated noise level changes. These maps are produced by calculating the difference in noise level at locations across the project between 2 scenarios. The resulting differences are colour coded and displayed as noise level difference contour bands. The selected bands are those described in the ES and are reproduced here with their respective colour coding.

Table 11.4 Difference Contour bands, their significance and colour coding

Noise Change dB (L _{A10,18h})	Description	Colour
> -10	High Positive	Dark Green
-10 to -3	Moderate Positive	Mid Green
-3 to 0	Low Positive	Light Green
0 to +3	Low Negative	Yellow
+3 to +10	Moderate Negative	Orange
> +10	High Negative	Red

11.1.10 Difference maps have been created for the following comparisons:

- 2015 DS minus 2015 DM to illustrate differences due to the Project in the year 2015;
- 2030 DS minus 2030 DM to illustrate differences due to the Project in the year 2030; and
- 2030 DS minus 2006 Base Year to illustrate the maximum change compared to noise levels people are experiencing now.

11.1.11 The difference maps are shown in the Figures 11.1 to 11.3 with each scenario (modelled without noise barriers) split into 2 sections with the north and south sections of the Project designated as a and b.

11.1.12 All three comparisons clearly show mid green areas at the western side of the Project route indicating areas with moderate reductions in noise levels, with some orange and red areas close to the New Bridge indicating areas that will experience moderate to high increases. Most of the areas adjacent to the Central Expressway can be seen to be coloured yellow with some orange areas adjacent to the southern part of the Central Expressway indicating low to moderate increases in noise levels. These increases would be mitigated by the proposed construction of road side barriers which would reduce the resulting noise increase by at least 5 dB, and the overall impact to low. When viewing these difference maps, it must be remembered that the size of some of the increases shown are due in part to the existing noise level being relatively low. Thus when considering the overall impact of the Project, account must be taken of the absolute noise levels as well as the expected change in level.

Summary of Additional Information

- 11.1.13 This chapter of the ES addendum has provided additional, detailed information about the expected noise impact in the form of tabulated noise levels at specific locations for the various scenarios with and without the project.
- 11.1.14 In addition noise level difference maps have been produced to depict graphically increases and decreases in noise level for various comparisons.
- 11.1.15 As described in the ES the proposed introduction of noise barriers at the roadside along the Central Expressway will further reduce the resulting noise levels.
- 11.1.16 The additional data presented here does not alter the analysis or conclusions provided in the ES.

FIGURES