Annex A Environmental Worksheets and Useful Contacts

A.1 Introduction

This section sets out a series of worksheets and useful environmental contacts and should be read in conjunction with Section 7 (Environment).

Worksheets are provided to assist in carrying out a Part 2 Appraisal of the environmental impacts of a proposal. The completion of worksheets is not compulsory; however they do provide confidence that the appraisal has been carried out objectively and they do provide a robust audit trail of the appraisal process and as such are recommended to the planner.

The content of the appendix and worksheets provided are set out in Table A1 below.

Table A1: Index of Worksheets

Section	Heading	Worksheet	Title
A.2	Noise and Vibration	N1	Noise - Strategic Level
		N2	Noise - Project Level
A.3	Local Air Quality	A1	Air Quality - Strategic Level
		A2	Air Quality - Project Level - PM_{10}
		A3	Air Quality - Project Level - NO_2
		A4	Air Quality - Strategic & Project Level
A.4	Water Quality, Drainage & Flood Defence	W1	Water Quality, Drainage & Flooding - Strategic & Project Level
A.5	Geology	G1	Geology - Strategic & Project Level
A.6	Biodiversity & Habitats	B1	Biodiversity - Strategic & Project Level, Baseline Information
		B2	Biodiversity - Strategic & Project Level, Impact Assessment
A.7	Agriculture and Soils	AG1	Agriculture & Soils - Strategic & Project Level, Baseline Information
		AG2	Agriculture & Soils - Strategic & Project Level, Impact Assessment
A.8	Cultural Heritage	CH1	Cultural Heritage - Strategic Level
		CH2	Cultural Heritage - Strategic Level, Assessment Score
		CH3	Cultural Heritage - Project Level, Baseline Information
		CH4	Cultural Heritage - Project Level
		CH5	Cultural Heritage - Project Level, Assessment Score
A.9	Physical Fitness	P1	Physical Fitness – Project Level
A.11	Useful Environmental Contacts	-	-

A.2 Noise and Vibration

Worksheet N1: Noise - Strategic Level

Proposal Name:		Existing & Future Noise Issues:					**Worksheet N1: Noise - Strategic Level[1]**		
Location:							Date of Assessment:		
							Assessment Year:		
Do-Minimum vs. Existing	Existing[2] Average[3] Noise Emission Level (dB)	Do-Minimum Average Noise Emission Level (dB)	Change in Average Noise Emission Level (dB)	Length of all Relevant Transport Corridors (km)	Width of Impact Corridor (m)[4]	Area of Population Exposed (km^2)	Zonal Population Density (persons/km^2)	Population Exposed (numbers of people)	Change in Annoyance Response Function[5] (% popn./dB)	Change in Population Annoyed (number of people)
Zone:	A	B	C=B-A	D	E	F=D*E/1000	G	H=F*G	J	K=C*H*J/100
Totals	-	-	-	TOTAL	-	TOTAL	-	TOTAL	-	-
Proposal vs. Do-minimum	Do-Minimum Average Noise Emission Level (dB)	Proposal Average Noise Emission Level (dB)	Change in Average Noise Emission Level (dB)	Length of all Relevant Transport Corridors (km)	Width of Impact Corridor (m)	Area of Population Exposed (km^2)	Zonal Population Density (persons/km^2)	Population Exposed (numbers of people)	Change in Annoyance Response (% population)	Change in Population Annoyed (number of people)
Totals	-	-	-	TOTAL		TOTAL	-	TOTAL	-	-

	Do-Minimum vs. Existing		Proposal vs. Do-Minimum[6]		Spatial / Social Groups Affected	Noise Related Objectives (where appropriate)	Assessment Score[7]
Increase in Population Annoyed							
Reduction in Population Annoyed							
No Change Population Annoyed							
Total Change in Population Annoyed							
Key Assumptions[8]:							
Key Data Sources:							

Notes to Worksheet N1

1 Based on WebTAG Unit 3.3.2 Worksheet 2.

2 Estimate average noise emissions using CRTN or CRN indicators for year 15.

3 Only continue calculations for zones where do-minimum or strategy noise emissions are 55 dB $L_{Aeq,\ 18hr}$ or more.

4 50M is considered reasonable to capture the majority of the population exposed in an urban / suburban area.

5 Assumed to be 3% per dB for road noise and 2% per dB for rail noise at average levels greater than 65 dB $L_{Aeq,\ 18hr}$. (see Table 7.1 in the STAG Technical Database).

6 A separate calculation sheet can be used to compare existing with proposal if this is required.

7 Using 7-point scale as described in STAG Technical Database Section 5.4.

8 Include a description of any mitigation assumed to be in place.

Worksheet N2: Noise - Project Level

Proposal Name:		Existing & Future Noise Issues:		**Worksheet N2: Noise - Project Level[1]**					
Location:		Previous Calculations[2]:		Date of Assessment:					
				Assessment Year:					

Road Traffic Noise[3] LA10, 18 hour (dB)	Estimated Population Exposed			No. Properties with a Change in Noise Levels >3dB(A)[4]		% Highly Bothered/ Annoyed by Noise[5]	Estimated Population Highly Bothered / Annoyed			Spatial/Social Groups Affected	Mitigation / Enhancement Description in words.	Impact Significance Assessment[6]
	Existing	Do-Min	Proposed	Proposed vs. Do-Min			Existing	Do-Min	Proposed			
	A	B	C	-ve	+ve		=A*%	=B*%	=C*%			
<57						<10%						Difference between totals of people annoyed and comments re large changes.
57-59						11%						
60-64						16%						
65-69						26%						
70-74						39%						
>74						>48%						
Estimated Population Annoyed by Road Traffic Noise:												
Railway Noise LAeq, 18 hour (dB)												
<55						<11%						
55-59						12%						
60-64						18%						
65-69						25%						
70-74						34%						
>74						40%						
Estimated Population Annoyed by Railway Noise:												
Total Population Annoyed[5] by Railway Noise:										Noise Related Objectives (where appropriate)		
Key Assumptions:												
Key Data Sources:												

Notes to Worksheet N2

1 Based on WebTAG Unit 3.3.2 Worksheet 1

2 Provide numbers of people annoyed and distribution data from any previous calculations where undertaken.

3 Assumes stated mitigation is implemented.

4 If appropriate, these data will require consideration of individual properties or groups of properties to identify numbers of properties with noise changes >3dB(A). A separate worksheet can be used to compare do-minimum to existing, if this is required.

5 From Table 7.1, STAG Technical Database. Annoyance response for road noise is also provided in Figure 2, DMRB 11.3.7.

6 Using 7-point scale as described in STAG Technical Database Section 5.4.

A.3 Local Air Quality

Worksheet A1: Local Air Quality - Strategic Level

Proposal Name:		Existing & Future Air Quality Issues:		**Worksheet A1: Air Quality - Strategic Level**[1]	
				Assessment Date:	
				Assessment Year:	

Emissions Estimate NO_2[2,3]

Location / Zone	Data for Each Location/Zone		Existing		Do-Minimum		Proposal		Do-Minimum minus Existing			Do Something minus Do-Minimum[4]		
	People *A*	Area km^2 *B*	Tonnes / Year *C*	Index *D* = *(C*A)/B*	Tonnes/ Year *E*	Index *F= (E*A)/B*	Tonnes/ Year *G*	Index *H= (G*A)/B*	*J =H-D*	No. People Better	No. People Worse	*K =H-F*	No. People Better	No. People Worse
1														
2														
…n														
	Total *A*	Total *B*	Total *C*	Total *D*	Total *E*	Total *F*	Total *G*	Total *H*	Total *J*	Total Better	Total Worse	Total *K*	Total Better	Total Worse

Emissions Estimate PM_{10}[1]

Location / Zone	Data for Each Location/Zone		Existing		Do-Minimum		Do Something		Do-Minimum minus Existing			Do Something minus Do-Minimum		
	People *A*	Area km^2 *B*	Tonnes / Year *C*	Index *D* = *(C*A)/B*	Tonnes/ Year *E*	Index *F= (E*A)/B*	Tonnes/ Year *G*	Index *H= (G*A)/B*	*J = H-D*	No. People Better	No. People Worse	*K =H-F*	No. People Better	No. People Worse
1														
2														
…n														
	Total *A*	Total *B*	Total *C*	Total *D*	Total *E*	Total *F*	Total *G*	Total *H*	Total *J*	Total Better	Total Worse	Total *K*	Total Better	Total Worse

Key Assumptions:	
Key Data Sources:	

Notes to Worksheet A1

1 Based on WebTAG Unit 3.3.3 Worksheet 2.

2 Total CO_2, PM_{10} and NO_2 emissions for road traffic can be calculated using the 'Regional' application of the DMRB spreadsheet, as described in DMRB 11.3.1.

3 Zones within transport models will usually be of differing sizes. Study areas will also differ in size. Therefore total emissions should be expressed in terms of emission per unit area (e.g. tonnes per km^2 per year).

4 A separate worksheet can be used to compare do-minimum to existing, if this is required.

Worksheet A2: Local Air Quality - Project PM_{10}

Proposal Name:		Existing & Future Air Quality Issues:		**Worksheet A2: Air Quality - Project PM_{10}[1]**	
Location:				Assessment Date:	
Previous Calculations PM_{10}:				Assessment Year:	

Opening Year: Do Minimum			Exposure to PM_{10} µg/m^3 Do-Min.	Future Year: Do-Minimum[3] PM_{10}	Exposure to PM_{10} µg/m^3 Do-Min	Spatial / Social Groups Particularly Affected
Distance Bands	No. Properties	PM_{10}[2]				
0-50m	*A*	*B*	*C = A*B*	*D*	*E = A*D*	
50-100m						
100-150m						
150-200m						
0-200m						

Opening Year: Proposal			Exposure to PM_{10} µg/m^3 Proposal	Future Year: Proposal PM_{10}	Exposure to PM_{10} µg/m^3 Proposal.	Proposal vs. Do Minimum[4]					
						Difference in Exposures		Number of Properties			
								Opening Year		Future Year	
Distance Bands	No. Properties	PM_{10}				Opening Year	Future Year	Better	Worse	Better	Worse
0-50m	*G*	*H*	*I = G*H*	*J*	*K = G*J*	*I-C*	*L-F*				
50-100m											
100-150m											
150-200m											
0-200m					Total Difference in Exposure:			Total	Total	Total	Total

Key Assumptions	
Key Data Sources	

Notes to Worksheet A2

1 Based on WebTAG Unit 3.3.3 Worksheets 1a and 1b.

2 Total CO_2, PM_{10} and NO_2 emissions for road traffic can be calculated using the 'Local' application of the DMRB spreadsheet, as described in DMRB 11.3.1.

3 Appropriate future year.

4 A separate worksheet can be used to compare do-minimum to existing, if this is required.

Worksheet A3: Air Quality - Project NO_2

Proposal Name:		Existing & Future Air Quality Issues:				**Worksheet A3: Air Quality - Project NO_2[1]**						
Location:						Assessment Date:						
Previous Calculations NO_2:						Assessment Year:						
Opening Year: Do Minimum			Exposure to NO_2 µg/m^3 Do-Min	Future Year: Do-Minimum[3] NO_2	Exposure to NO_2 µg/m^3 Do-Min.	Spatial / Social Groups Particularly Affected						
Distance Bands	No. Properties	NO_2[2]										
0-50m	*A*	*B*	*C = A*B*	*D*	*E = A*D*							
50-100m												
100-150m												
150-200m												
0-200m												
Opening Year: Proposal			Exposure to NO_2 µg/m^3 Proposal	Future Year: Proposal NO_2	Exposure to NO_2 µg/m^3 Proposal.	Proposal vs. Do Minimum[4]						
Distance Bands	No. Properties	NO_2				Difference in Exposures		Number of Properties				
								Opening Year		Future Year		
						Opening Year	Future Year	Better	Worse	Better	Worse	
0-50m	*G*	*H*	*I = G*H*	*J*	*K = G*J*	*I-C*	*L-F*					
50-100m												
100-150m												
150-200m												
0-200m					Total Difference in Exposure:			Total	Total	Total	Total	
Key Assumptions												
Key Data Sources												

Notes to Worksheet A3

1 Based on DMRB Vol 11, Section 3 Part 1 methodology.

2 Total CO_2, PM_{10} and NO_2 emissions for road traffic can be calculated using the 'Local' application of the DMRB spreadsheet, as described in DMRB 11.3.1.

3 Appropriate future year.

4 A separate worksheet can be used to compare do-minimum to existing, if this is required.

Worksheet A4: Air Quality - Strategic & Project Level

Proposal Name:					**Worksheet A4: Air Quality - Strategic & Project Level**		
Existing & Future Air Quality Issues:						Assessment Date:	
						Assessment Year:	
Location & Sensitivity[1]	Relevant Policies / Objectives / AQS Objectives	Impact Description[2]	Impact Magnitude[3]	Timescale: When / Duration	Uncertainty[4]	Mitigation / Monitoring[5]	Impact Significance Assessment
Key Assumptions:							
Key Data Sources:							

Notes to Worksheet A4

1 Make reference to location of change and any relevant spatial or social groups particularly affected.

2 Expressed in terms of change in traffic characteristics or distance between source and receptors etc.

3 Those pollutants giving rise to relevant change in relation to standards / objectives.

4 Level of uncertainty in assessment (High, Medium, Low).

5 Note need for mitigation / monitoring and organisation responsible.

A.4 Water Quality, Drainage and Flood Defence

Worksheet W1: Water Quality, Drainage & Flooding - Strategic Project Level

Proposal Name				**Worksheet W1: Water Quality, Drainage & Flooding - Strategic / Project Level**						
Existing & Future Water Issues:								Assessment Date:		
Location[1]	Water Use[2]	Resource Quality / Status[3]	Objectives[4]	Scale it Matters[5]	Potential Impacts	Timescales: When / Duration	Ease of Substitution[6]	Uncertainty[7]	Mitigation Potential	Impact Significance Assessment[8]
Surface Waters[9]										
Groundwater[10]										
Land Drainage / Flood Defence										
Key Assumptions:										
Key Data Sources:										

Notes to Worksheet W1

1 At project level, watercourses should be considered in terms of their separate reaches.

2 Fisheries / recreation / abstraction

3 Status of surface water, aquifer protection or level of flood risk. Status also to be reported in terms of Scottish River, Loch, Coastal Waters and Estuary Classification Schemes to reflect their sensitivity and also in terms of whether the watercourses in the area are a designated salmonid or cyprinid fishery.

4 Objectives set nationally or locally as well as environmental capital objectives.

5 Scale of relevance to decision makers.

6 See Section 7.4.4.3 in the STAG Technical Database.

7 Level of uncertainty in assessment (high, medium, low).

8 Using 7-point scale as described in STAG Technical Database Section 5.4.

9 Include consideration of surface water run-off.

10 Name of aquifer.

A.5 Geological Features

Worksheet G1: Geological Features - Strategy & Project Level

Proposal Name:			**Worksheet G1: Geological Features - Strategy & Project Level**						
Existing & Future Issues:							Assessment Date:		
Scale it Matters[1]	Attribute / Feature / Designation	Location / Status[2]	Relevant Objectives[3]	Potential Impact	Ease of Substitution	Timescale: When / Duration	Uncertainty	Mitigation	Impact Significance Assessment[4]
Geological Sites									
Mineral Reserves									
Key Assumptions:									
Key Data Sources:									

Notes to Worksheet G1

1 List in order of importance e.g. International, National, Regional, Local.

2 Indicate mineral resource.

3 Following discussions with statutory body.

4 Using 7-point scale as described in STAG Technical Database Section 5.4.

A.6 Biodiversity & Habitats

Worksheet B1: Biodiversity & Habitats - Strategic & Project Level, Baseline Information

Proposal Name:			**Worksheet B1: Biodiversity - Strategic & Project Level, Baseline Information**			
Existing & Future Issues:					Assessment Date:	
Location / Status[1]	Attribute / Feature Habitats / Species[2]	Scale it Matters	Importance[3]	Trend / Status	Ease of Substitution	Relevant Objectives[4]
International Designated Features						
National Designated Features						
Regional Designated Features						
Local / Other Designated Features						

Notes to Worksheet B1

1 The name / location and designation of any relevant site / area should be provided.

2 Key characteristics of note.

3 As discussed in Section 7.4.6.5 of the STAG Technical Database, the assessment should be carried out according to the Ratcliffe criteria.

4 Relevant objectives to be taken from BAPs and other relevant documents.

International	Special Protection Areas, Special Areas of Conservation, Ramsar Sites, Natura 2000 sites and other international convention sites.
National	Site of Special Scientific Interest, National Nature Reserves, National Biodiversity Action Plans, National Parks and other statutory designated national sites.
Regional	SNH's Natural Heritage Futures, structure plan designations and other sites of regional importance.
Local/Other	Local Nature Reserves, Sites of Interest to Nature Conservation (SINC), SWT sites, other Local Plan designations, Local Biodiversity Action Plans.

Worksheet B2: Biodiversity & Habitats - Strategic & Project Level, Impact Assessment

Proposal Name:			**Worksheet B2: Biodiversity - Strategic & Project Level, Impact Assessment**			
Location	Potential Impacts	Potential for Cumulative Effects[1]	Timescales: When / Duration	Uncertainty	Mitigation	Impact Significance Assessment[2]
Key Assumptions:						
Key Data Sources:						

Notes to Worksheet B2

1 Consider potential for impacts not just within the proposal but also with other external actions potentially affecting the site or resource.

2 Use 7-point scale as described in STAG Technical Database Section 5.4.

A.7 Agriculture and Soils (AG1, AG2)

Worksheet AG1: Agriculture & Soils - Strategic & Project Level, Baseline Information

Proposal Name:		**Worksheet AG1: Agriculture & Soils - Strategic & Project Level, Baseline Information**				
Existing & Future Issues:					Assessment Date:	
Location / Status[1]	Attribute / Feature[2]	Scale it Matters	Importance	Trend / Status	Land Take[3]	Ease of Substitution

Notes to Worksheet AG1

1 The name / location and predominant agricultural land class for the area / site should be provided.

2 Key agricultural characteristics of note such as importance to wider agricultural activities should be provided or preponderance of organic farming.

3 A broad estimate of land take should be made at a strategic level with more accurate figures provided at the project level.

Worksheet AG2: Agriculture & Soils - Strategic & Project Level, Impact Assessment

Proposal Name:		**Worksheet AG2: Agriculture & Soils - Strategic & Project Level, Impact Assessment**				
Location	Potential Impacts[1]		Potential for Cumulative Effects[2]	Timescale: When / Duration	Uncertainty	Mitigation	Impact Significance Assessment[3]
	Husbandry	Severance					
Key Assumptions:							
Key Data Sources:							

Notes to Worksheet AG2

1 Potential impacts in terms of making husbandry activities no longer viable and severance causing major structural changes in farm operations should be recorded in terms of the number of farms affected. At a strategic level an indication of such potential effects would be appropriate.

2 Consider potential for impacts not just within the strategy or project but also for external actions potentially affecting the site or resource.

3 Use 7-point scale as described in STAG Technical Database Section 5.4.

A.8 Cultural Heritage

For the assessment of the effects upon standing structures and archaeological remains at the strategic level, STAG requires only a broad assessment of what impact a proposal may have on the 7-point scale (major negative to major positive – see STAG Technical Database Section 5.4). This includes an assessment against any specific Cultural Heritage objectives at the national, regional and local level.

At the project level the method of assessment relies upon an appreciation of the character of the individual heritage components with direct and indirect construction and operational impacts being considered.

The Part 2 AST requires a description of all designated sites and their designations in quantitative and qualitative terms.

The STAG worksheets for cultural heritage consist of five tables, two for the strategic level assessment and three for the project level assessment.

The STAG worksheets for cultural heritage require that the name and location of each site affected should be entered along with a summary description of the physical form of each site. Projects with a widespread effect, geographically or on the historic resource, should emphasise the most characteristic elements of that resource and the most significant effects on it. The cumulative impact of larger schemes should also to be recorded.

The strategic level worksheet (CH1) provides an overview of the heritage features under four designation types (international, national, regional and local/other). Table CH2 identifies impacts with an assessment score based on a 7-point scale (Major negative - Major positive).

The project level assessment comprises three worksheets:

> Worksheet CH3 (Baseline Information) provides a description of the site/feature and records information in terms of 'scale it matters', 'importance', 'trend/status' and 'policy objectives'.
> Worksheet CH4 (Project Level Assessment) provides an assessment of the potential effects/impacts based on 'compliance with policy objectives', 'timescale', 'uncertainty' and 'enhancement/mitigation'.
> Worksheet CH5 (Assessment Scores). The final worksheet provides a review of the number of sites affected to different levels of importance based on the 7-point assessment scale.

In completing Worksheets CH2 and CH5, it is strongly recommended that scheme impact interpretation is based on the distribution of the scores. It is not appropriate to interpret the assessment findings based on the aggregation of the scores which would fail to recognise the respective grades of heritage importance.

Worksheet CH1: Cultural Heritage - Strategic Level

Proposal Name:					**Worksheet CH1: Cultural Heritage - Strategic Level**		
Existing & Future Issues:						Assessment Date:	
Attribute / Feature	Potential Impact		Impact Magnitude[7]	Timescales: When / Duration[8]	Relevant Policy Objectives[9]	Uncertainty[10]	Enhancement / Mitigation Potential[11]
	Opening Year[1]	Assessment Year[2]					
Internationally Designated Features[3]							
Nationally Designated Features[4]							
Regionally Designated Features[5]							
Local / Other Cultural Features[6]							
Key Data Sources:							
Key Assumptions							

Notes to Worksheet CH1

1 For each identified site describe the potential impacts of the proposal (including direct, indirect and cumulative effects) at year of opening.

2 For each identified site describe the potential impacts of the proposal (including direct, indirect and cumulative effects) at year of assessment (if applicable).

3 Based upon the occurrence of sites within 500m of possible transport measures list any World Heritage Sites.

4 Based upon the occurrence of sites within 300m of possible transport measures or principle network with more than 25% change in traffic volume list any Scheduled Ancient Monuments; National Trust Category A listed buildings; sites included on the inventory of History Gardens and Designed Landscapes.

5 List any relevant Conservation Areas, Category B listed buildings, sites of regional archaeological importance affected by the proposal.

6 List any relevant Category C(S) listed buildings, sites of local archaeological importance.

7 An assessment of the relative scale of the impact.

8 Identification of the timescale of the impact in terms of occurrence and duration.

9 Identify any National and local government policy objectives relevant to cultural heritage.

10 Comment on the level of certainty attached to the assessment of impacts on the basis of present information. This relates to the imperfect nature of archaeological information and/or the uncertainty about the nature and extent of works which would create the impact. The entry should reflect the level of confidence which would attach to the overall assessment.

11 Assessment to be undertaken 'without' and 'with' mitigation measures to demonstrate effectiveness of the proposed mitigation measures.

Worksheet CH2: Cultural Heritage - Strategic Level Assessment Score

Proposal Name:				**Worksheet CH2: Cultural Heritage - Strategic Level, Assessment Score[1]**			
Historic Features	Major Negative	Moderate Negative	Minor Negative	Neutral	Minor Positive	Moderate Positive	Major Positive
International							
National							
Regional							
Local / Other							
Key Data Sources:							
Key Assumptions:							

Notes to Worksheet CH2

1 See guidance on determination of assessment scores in Section A.9 below.

Worksheet CH3: Cultural Heritage - Project Level, Baseline Information

Project Name:		**Worksheet CH3: Cultural Heritage - Project Level, Baseline Information**			
Existing & Future Issues:				Assessment Date:	
Area / Location (Grid Ref.)[1]	Attribute / Feature	Scale it Matters[4]	Importance[5]	Trend / Status[6]	Relevant Policy Objectives[7]
	Feature Name[2]:				
	Description[3]:				
	Feature Name:				
	Description:				
Key Data Sources:					
Key Assumptions:					

Notes to Worksheet CH3

1 Area / Location to include grid reference.

2 The official title of the property.

3 A short summary of the monument / property as recorded in the appropriate schedule, listing, records etc.

4 An assessment of the policy level at which the site or feature is regarded as important: 'national', 'regional', 'local', or 'lesser importance'.

5 Information on designations, which indicates the levels of importance of the site within its context. The information should allow for a great degree of differentiation between individual sites, which might all have the same level of designation, but which are not all of equal significance within their context. For example non-designated sites may be major contributors within a locality.

6 Statement on the relative scarcity / abundance and actual designation / status of the attribute / feature.

7 Central and local government objectives relevant to the feature.

Worksheet CH4: Cultural Heritage - Project Level

Proposal Name:					**Worksheet CH4: Cultural Heritage - Project Level**		
Existing & Future Issues:						Assessment Date:	
Site Name / Location	Potential Impact		Compliance with Policy Objectives[4]		Timescales[3]: When / Duration	Uncertainty[5]	Enhancement / Mitigation Potential[6]
	Opening Year[1]	Assessment Year[2]					
International Importance							
National Importance							
Regional Importance							
Local / Other Features							
Key Data Sources:							
Key Assumptions							

Notes to Worksheet CH4

1 For each identified site describe the potential impacts of the proposal (including direct, indirect and cumulative effects) a year of opening. Project level assessments to include impacts 'without' and 'with' the project.

2. For each identified site describe the potential impacts of the proposal (including direct, indirect and cumulative effects) at year of assessment (if applicable). Project level assessments to include impacts 'without' and 'with' the project.

3 Identification of the timescale of the impact in terms of occurrence and duration.

4 Identify any National and local government policy objectives relevant to cultural heritage.

5 Comment on the level of certainty attached to the assessment of impacts on the basis of present information. This relates to the imperfect nature of archaeological information and/or the uncertainty about the nature and extent of works which would create the impact. The entry should reflect the level of confidence which would attach to the overall assessment.

6. Assessment to be undertaken 'without' and 'with' mitigation measures to demonstrate effectiveness of the proposed mitigation measures. To include consideration of feasibility, cost and effectiveness.

Worksheet CH5: Cultural Heritage - Project Level, Assessment Score

Proposal Name:				**Worksheet CH5: Cultural Heritage - Project Level, Assessment Score[1]**			
Historic Features	Major Negative	Moderate Negative	Minor Negative	Neutral	Minor Positive	Moderate Positive	Major Positive
International							
National							
Regional							
Local / Other							
Key Data Sources:							
Key Assumptions:							

Notes to Worksheet CH5

1 See guidance on determination of assessment scores in Section A.9 below.

Worksheet P1: Physical Fitness – Project Level

Proposal Name:		Existing & Future Physical Fitness Issues:		**Worksheet P1: Physical Fitness - Project Level**	
Location:				Date of Assessment:	
				Assessment Year:	

Health impacts

Proposal vs. Do-minimum[1]	Mean distance travelled on route (km)	Proportion users making return trip	Average days travelled on route per year	Mean distance travelled per year per user	1- maximum achievable relative risk[2]	1 - relative risk for study	All-cause mortality for study[3]	Change in number of users	Deaths avoided
Forecast year	A	B	C	D	E	F=(D/1628*E)	G	H	J=F*G*H
1									
2									
…									

Absenteeism impacts

Proposal vs. Do-minimum[1]	Change in number of users that are employees[4]	Average speed (kph)	Time spent travelling (mins)	Relative impact (maximum value =1)	Average absence[5]	Absence due to short-term sick leave	Potential employee days affected	Lost working days avoided (core result)	Lost working days avoided (upper limit (sensitivity)
Forecast year	K	L	M=60/L*A*(1+B)	N=M/30	P	Q=P*0.95	R=K*N*P	S=R*0.06	T=R*0.32
1									
2									
…									

	Proposal vs. Do-Minimum	Spatial / Social Groups Affected	Physical Fitness related objectives (where appropriate)	Assessment Score[6]
Total deaths avoided:				
Total lost working days avoided:				
Key Assumptions:				
Key Data Sources:				

Notes to Worksheet P1

1 Include an accrual period to reflect build up of benefits following scheme opening.

2 The maximum achievable relative risk should typically be taken as 0.28 for cyclists and 0.15 for

3 Note that the rate of all-cause mortality for Scotland is 0.00324.

4 Note that for Scotland as a whole 42% of the population can be classed as an employee.

5 The average employee absence in Scotland is 6.8 days.

6 Using 7-point scale as described in STAG Technical Database Section 5.4.

A.10 Guidance on the Determination of Assessment Scores for Cultural Heritage

The *assessment* is based on a combination of the site's significance and the impact of the scheme upon it. Considered professional judgement will be required to assess the cumulative impacts of a scheme on Cultural Heritage. For example, a number of minor impacts on sites may have an overall major impact. Impacts on related sites may have an overall effect greatly exceeding the sum of the individual impacts. The assessment uses a 7-point scale, as follows:

Major adverse;
Moderate adverse;
Minor adverse;
Neutral;
Minor positive;
Moderate positive; and
Major positive.

These categories are explained in the following paragraphs.

Major Adverse

An assessment of 'major adverse' should be realised where a scheme would result in:

- A limited direct impact on or partial degradation of the wider setting of internationally important site(s), resulting in the loss of features to such a degree that the integrity of the site is partly compromised, but not destroyed, or to the extent that their context is compromised and appreciation and understanding is diminished;
- A major direct physical impact on nationally important sites, resulting in the loss of features to such a degree that the integrity of the site is destroyed;
- Major visual intrusion into the immediate setting of nationally important sites, to the extent that their context is seriously compromised and can no longer be appreciated or understood. A limited direct physical impact on or compromise of the wider setting(s) of multiple sites of national importance, to the extent that the cumulative impact would seriously compromise the integrity of a related group of sites or historic landscape. ['Related', in this sense, can mean both a linked group of contemporary sites or those illustrating the development of a landscape over time];
- A major direct physical impact on regionally important sites, resulting in the loss of features to such a degree that the integrity of the site is destroyed, and either no adequate mitigation has been specified or it is incapable of achievement; and
- A serious direct physical impact on or compromising of the immediate setting of multiple sites of regional importance, to the extent that the cumulative impact would seriously compromise the integrity of a related group of sites or historic landscape.

Moderate Adverse

An assessment of 'moderate adverse' should be realised where a scheme would result in:

- Some limited direct physical impact on nationally important sites, resulting in the loss of features to such a degree that the integrity of the site is compromised, but not destroyed, and adequate mitigation has been specified;
- Visual intrusion into the wider setting of nationally important sites, to the extent that there context is compromised and appreciation and understanding is diminished;

- A major direct physical impact on regionally important sites, resulting in the loss of features to such a degree that the integrity of the site is destroyed, but adequate mitigation has been specified;
- Major visual intrusion into the immediate setting of regionally important sites, to the extent that their context is seriously compromised and can no longer be appreciated or understood; and
- A limited direct physical impact on or compromising of the wider setting of multiple sites of regional importance, to the extent that the cumulative impact would seriously compromise the integrity of a related group of sites or historic landscape.

Minor Adverse

An assessment of 'minor adverse' should be realised where a scheme would result in:

- Some direct physical impact on regionally important sites, resulting in the loss of features to such a degree that the integrity of the site is compromised, but not destroyed, and adequate mitigation could be specified;
- Visual intrusion into the wider setting of regionally important sites, to the extent that there context is compromised and appreciation and understanding of them is diminished; and
- Loss of sites or their historic features which are of local importance, but for which adequate mitigation measures could be specified.

Neutral

An assessment of 'neutral' should be realised where a scheme would result in:

- No appreciable effect, either positive or negative, on any known sites.

The latter would generally only apply to those cases where 'minor' and 'moderate adverse' impacts are involved.

Minor Positive

An assessment of 'minor positive' should be realised where a scheme would result in:

- Removal or mitigation of existing visual intrusion into the wider setting of regionally important sites, to the extent that their context is partly re-established and appreciation and understanding of them is improved.

Moderate Positive

An assessment of 'moderate positive' should be realised where a scheme would result in:

- Removal or mitigation of existing major visual intrusion into the immediate setting of regionally important sites, to the extent that their context is significantly improved and can be better appreciated or understood; and
- Removal or mitigation of existing visual intrusion into the wider setting of multiple regionally important sites, to the extent that the context and the integrity of a related group of sites or historic landscape is re-established and appreciation and understanding of them is improved.

Major Positive

An assessment of 'major positive' should be realised where a scheme would result in:

- Removal or mitigation of existing visual intrusion into the wider setting of internationally important sites, to the extent that their context and integrity is re-established and appreciation and understanding of them is improved;
- Removal or mitigation of existing major visual intrusion into the immediate setting of nationally important sites, to the extent that their context is significantly improved and can be better appreciated or understood;
- Removal or mitigation of existing visual intrusion into the wider setting of multiple sites of national importance, to the extent that the integrity of a related group of sites or historic landscape is re-established and appreciation and understanding of them is improved; and
- Removal or mitigation of existing major visual intrusion into the immediate setting of multiple sites of regional importance, to the extent that the integrity of a related group of sites or historic landscape is re-established and appreciation and understanding of them is improved.

A.11 Useful Environmental Contacts

Name : Architectural Heritage Society of Scotland
Address : The Glasite Meeting House
33 Barony Street
Edinburgh
EH3 6NX
Telephone : 0131 557 0019
Fax : 0131 557 0049
Website : www.ahss.org.uk

Name : Council for Scottish Archaeology
Address : Causeway House
160 Causewayside
Edinburgh
EH9 1PR
Telephone : 0131 668 4189
Fax : 0131 668 4275
Website : www.scottisharchaeology.org.uk

Name : Garden History Society
Address : 70 Cowcross Street
London
EC1M 6EJ
Telephone : 020 7608 2409
Fax : 020 7490 2974
Website : www.gardenhistorysociety.org

Name : Garden History Society in Scotland
Address : Glaiste Meeting House
33 Barony Street
Edinburgh
EH3 6NX
Telephone : 0131 557 5717
Fax :
Website : www.gardenhistorysociety.org

Name : Historic Scotland
Address : Longmore House
Salisbury Place
Edinburgh
EH9 1SH
Telephone : 0131 668 8600 (general)
0131 668 8707 (listing)
0131 668 8777 (scheduling)
Fax : 0131 668 8669
Website : www.historic-scotland.gov.uk

Name : Scottish RIGS Coordinator
Address : British Geological Society (Edinburgh)
Murchison House
West Mains Road
Edinburgh
EH9 3LA
Telephone : 0131 650 0289
Email : mailto:maeb@bgs.ac.uk
Website : www.bgs.ac.uk
www.ukrigs.org.uk

Name : Macaulay Institute (Land Use Research)
Address : Craigiebuckler
Aberdeen
AB15 8QH
Telephone : 01224 498200
Fax : 01224 311556
Website : www.mluri.sari.ac.uk

Name : National Trust for Scotland
Address : Wemyss House
28 Charlotte Square
Edinburgh
EH2 4ET
Telephone : 0844 493 2100
Fax : 0844 493 2102
Website : www.nts.org.uk

Name : Office for National Statistics
Address : Cardiff Road
Newport
NP10 8XG
Telephone : 0845 601 3034
Fax : 01633 652 747
Website : www.statistics.gov.uk

Name : Royal Commission on Ancient and Historic Monuments in Scotland
Address : John Sinclair House
16 Bernard Terrace
Edinburgh
EH8 9NX
Telephone : 0131 662 1456
Fax : 0131 662 1477
Website : www.rcahms.gov.uk

Name : Royal Society of Wildlife Trusts
Address : The Kiln
Waterside
Mather Road
Newark
NG24 1WT
Telephone : 01636 677711
Fax : 01636 670001
Website : www.wildlifetrusts.org

Name : Scottish Civic Trust
Address : The Tobacco Merchant's House
42 Miller Street
Glasgow
G1 1DT
Telephone : 0141 221 1466
Fax : 0141 248 6952
Website : www.scotnet.co.uk/sct

Name : Scottish Environment Protection Agency
Address : SEPA Corporate Office
Erskine Court
Castle Business Park
Stirling
FK9 4TR
Telephone : 01786 457700
Fax : 01786 446885
Website : www.sepa.org.uk
See website for regional offices

Name : Scottish Government Environment and Rural Affairs Department
Address : Pentland House
47 Robb's Loan
Edinburgh
EH14 1TY
Telephone : 0131 244 6023
Fax : 0131 244 6116
Website : www.scotland.gov.uk

Name : Scottish Natural Heritage
Address : Great Glen House
Leachkin Road
Inverness
IV3 8NW
Telephone : 01463 725000
Fax : 01463 725067
Website : www.snh.org.uk

Name : Scottish Wildlife Trust
Address : Cramond House
Kirk Cramond
Cramond Glebe Road
Edinburgh
EH4 6NS
Telephone : 0131 312 7765
Fax : 0131 312 8705
Website : www.swt.org.uk