

# Appendix 9.1

## NMU Amenity Value

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# 1 NMU Amenity Value

## 1.1 Introduction

1.1.1 The assessment of the potential impacts of the Proposed Scheme on pedestrians, cyclists, and equestrians (non-motorised users (NMU)) was undertaken with reference to Design Manual for Roads and Bridges (DMRB) Volume 11, Section 3, Part 8 (Highways Agency et. al. 1993).

1.1.2 Under this guidance the key impacts that have been assessed include the following:

- Journey length and accessibility – changes in journey length may be a result of realigning routes, diversions or even closures
- Amenity value – amenity is defined here as ‘the relative pleasantness of the journey’ in accordance with DMRB
- Ease of access to the outdoors

1.1.3 In order to determine ‘the relative pleasantness’ a number of factors have been considered which could affect the amenity value of a route. This appendix contains the data used to assess the permanent (operational phase year 1) significance of impact on NMU amenity in detailed in **Chapter 9 (Volume 1)**.

## 1.2 Methodology

1.2.1 Although changes in amenity are subjective, for the purpose of this assessment it is considered that where NMUs would experience a change in traffic (increased flows), noise, visual impact and/ or air quality, there would be an impact on amenity, either beneficial or adverse.

1.2.2 Where existing NMU routes are accessed from existing at-grade crossing points (CPs), it is considered that there would be an improvement in NMU safety where replacement access is provided via dual carriageway underpasses.

1.2.3 Therefore, potential changes in amenity were considered where:

- Existing CPs for paths are affected by the Proposed Scheme
- Noise and air quality would potentially increase or decrease
- The Proposed Scheme would be visible from existing paths/ community land

1.2.4 **Table 1-1** below provides criteria for the significance of impact for changes to amenity value.

Table 1-1: *Significance of Impact on NMU Amenity*

Significance	Characteristics
Substantial	Where there is a substantial change in the existing view and/ or air quality and/ or a major change in noise levels and/ or substantial change in traffic flows resulting in change in safety
Moderate	Where there is moderate or noticeable change in the existing view and/ or air quality and/ or a moderate change in noise levels and/ or moderate change in traffic flows resulting in change in safety
Slight	Where there is slight or barely perceptible change in the existing view and/ or air quality and/ or a slight change in noise levels and/ or slight change in traffic flows resulting in change in safety
Negligible/ No change	Very little or no discernible change from baseline conditions equating to a no-change situation

### 1.3 Potential Impacts - Assessment Data

1.3.1 The four categories used to determine an overall change in amenity value are safety, visual, air quality and noise impacts. Therefore, the amenity value assessment in **Chapter 9** was undertaken based on data provided in relation to:

- Predicted traffic flows
- Predicted noise levels at receptors representative of NMU routes
- Predicted air quality at receptors representative of NMU routes
- Predicted impacts on views from receptors representative of NMU routes

1.3.2 This data is set out in the sub-sections below.

#### Safety

1.3.3 Changes in safety can be considered where there may be a change in traffic flow affecting NMU users. **Table 1-2** below shows the predicted traffic flows at Ralia and how the Proposed Scheme may affect speeds and flows at this location. This data affects NMU1 (NCN7) and NMU2 (CNPA Core Path) only, refer to **Drawing 9.1** for locations.

Table 1-2: Predicted traffic speeds and flows – Ralia

Existing - 2015			Proposed - 2026			Proposed - 2041		
Speed	Flow	%HGV	Speed	Flow	%HGV	Speed	Flow	%HGV
60	224	10%	67	259	7%	66	269	8%

1.3.4 The predicted increase in speeds and flows has been taken into consideration in assessing the potential change to safety for NMUs travelling along NMU1 and NMU2. This has been considered along with other factors including crossing points.

#### Visual

1.3.5 **Chapter 14 (Volume 1)** considers views from receptors with potential to be impacted by the Proposed Scheme. Representative outdoor and built receptors have been considered, some of which correspond to the NMU routes identified in **Chapter 9**.

1.3.6 **Table 1-3** below shows the visual receptor assessment table, indicating representative viewpoints from the variety of NMU routes. Receptors not relevant to NMU routes have been removed; the full table of receptors and potential impacts is contained within **Chapter 14**. Refer to **Drawing 14.4 and 14.5** (contained in **Volume 3**) for the receptor locations.

Table 1-3: Visual receptors assessment table

Viewpoint receptor	Sensitivity of receptor	Operation year 1				Operation years 15-25			
		Elements of Proposed Scheme visible	Description of embedded and additional mitigation measures	Magnitude of visual effect	Overall significance of effect	Elements of Proposed Scheme visible	Description of embedded and additional mitigation measures	Magnitude of visual effect	Overall significance of effect
Viewpoint 1 – Users of Invernahavon Caravan Site and road C1137	High/ medium	Views will remain relatively unchanged, though there may be some loss of vegetation until mitigation planting/ seeding becomes established.	Any woodland lost to the northbound side of the Proposed Scheme will be replaced.	Low	<b>Negligible</b>	Views will remain relatively unchanged, planting will be almost at maturity by this point.	Planting will be on its way to maturity and therefore will screen the road from this view.	Low	<b>Negligible</b>
Viewpoint 2 – Users of the Ralia Café and rest area	High	Views will remain relatively unchanged, though there may be some loss of vegetation until mitigation planting/ seeding becomes established.	Any woodland lost to the northbound side of the Proposed Scheme as well as along the minor access road will be replaced.	Medium/ Low	<b>Slight</b>	Views will remain relatively unchanged as widening is to the southbound side of the A9.	Planting will be on its way to maturity and therefore will screen the road from this view.	Low	<b>Negligible</b>
Viewpoint 3 – Residents of properties along road leading to Ralia Cafe	High	The proposed scheme will be visible from this view as the works are very close to existing properties. Proposed earthworks to the northbound carriageway will be formed as steeply as possible to try and retain existing vegetation alongside the road adjacent to these properties. However, the trees may need to be removed to allow for construction; therefore, the proposed earthworks and the carriageway will be clearly visible.	Any woodland lost to the northbound side of the Proposed Scheme to be replaced and earthworks will be refined.	High/ medium	<b>Substantial/ moderate/</b>	Earthworks and the road as well as maturing vegetation.	Planting will be on its way to maturity and therefore will mostly screen the road from this view.	Medium/ low	<b>Slight</b>
Viewpoint 5 – Users of U3063 Ralia – Nuide Road and residential receptors along this road	High	Views will change due to the Newtonmore Junction cutting through the area of coniferous woodland; therefore, a large proportion of this coniferous woodland will be lost.	Replacement of the lost coniferous woodland with a mixed native woodland and understorey planting. Refinement of earthworks to the junction.	High/ medium	<b>Moderate</b>	Views will remain relatively unchanged.	Planting will be on its way to maturity and therefore will screen the road from this view.	Low	<b>Slight</b>

Viewpoint receptor	Sensitivity of receptor	Operation year 1				Operation years 15-25			
		Elements of Proposed Scheme visible	Description of embedded and additional mitigation measures	Magnitude of visual effect	Overall significance of effect	Elements of Proposed Scheme visible	Description of embedded and additional mitigation measures	Magnitude of visual effect	Overall significance of effect
Viewpoint 6 - View from U3063 Ralia – Nuide Road and walking track	High	This view is very close to the Proposed Scheme, however the dualling widening to the southbound side, therefore the majority of changes are on the other side of the road from this track. There are earthworks to the northbound and southbound side of the mainline, where the main changes in view will occur. Upgrades to this road will also occur, therefore temporary effects will occur.	Refinement of earthworks and planting/ seeding to earthworks, including reinstatement of tree planting that will be removed through the Proposed Scheme.	High/ medium	<b>Substantial/ moderate</b>	The mainline will be visible.	Planting will be on its way to maturity and earthworks will be blended into the surroundings.	Medium/ low	<b>Slight</b>
Viewpoint 7 – South western edge of Newtonmore and recreational users of the Wildcat Trail	High/ medium	Views will remain relatively unchanged, though there may be some loss of vegetation until mitigation planting/ seeding becomes established.	Any loss of tree planting to the both the north and southbound sides of the mainline will be replaced with tree planting.	Low	<b>Slight/ negligible</b>	Views will remain relatively unchanged.	Planting will be on its way to maturity and earthworks will be blended into the surroundings.	Low	<b>Negligible</b>
Viewpoint 8 – Users of B9150 and residents to the western edge of Newtonmore	High/ medium	Views will remain relatively unchanged, though there may be some loss of vegetation until mitigation planting/ seeding becomes established.	Any loss of tree planting to both the north and southbound sides of the mainline will be replaced with tree planting.	Low	<b>Slight/ negligible</b>	Views will remain relatively unchanged	Planting will be on its way to maturity and earthworks will be blended into the surroundings.	Low	<b>Negligible</b>
Viewpoints 7, 9, 10 and 11 – Residents of Newtonmore	High/ medium	Views will remain relatively unchanged, though there may be some loss of vegetation until mitigation planting/ seeding becomes established. This would not detract from the wider, highly scenic view.	Any loss of tree planting to the both the north and southbound sides of the mainline will be replaced with tree planting.	Low	<b>Slight/ negligible</b>	Views will remain relatively unchanged	Planting will be on its way to maturity and earthworks will be blended into the surroundings.	Low	<b>Negligible</b>

Viewpoint receptor	Sensitivity of receptor	Operation year 1				Operation years 15-25			
		Elements of Proposed Scheme visible	Description of embedded and additional mitigation measures	Magnitude of visual effect	Overall significance of effect	Elements of Proposed Scheme visible	Description of embedded and additional mitigation measures	Magnitude of visual effect	Overall significance of effect
Viewpoint 13 – Residents of Upper Nuide Cottage and users of road U3036	High	Existing vegetation and landform provides some screening, however some of this vegetation will need to be removed during construction. The proposed access track and left-in-left-out will be visible. Drainage features will be visible, including SuDS basin 458 and compensatory flood storage area.	Trees and scrub planting where appropriate to help screen any drainage features and land cover changes.	High	<b>Substantial/moderate</b>	Topographical changes will be visible, along with new planting.	Planting will be on its way to maturity and earthworks will be blended into the surroundings.	Medium	<b>Moderate/ slight not significant</b>
Residential receptors of Milton of Nuide – Viewpoint 14	High	The Proposed Scheme is widening to the south east, so towards this receptor at this location. There will also be upgrade works to the existing track that runs parallel to the A9. Some trees will be removed through the construction period; therefore, there will be a more open view towards the Proposed Scheme in the short term.	Tree and shrub planting along the mainline and access track.	Medium	<b>Moderate</b>	Glimpsed views of the mainline will be possible through tree planting, however view is anticipated to be similar to the existing view.	Tree planting will be on its way to maturity and therefore will be doing some screening of the Proposed Scheme.	Low	<b>Slight</b>
Users of General Wade's Military Road – Viewpoint 15	High	The Proposed Scheme is widening to the south east, so towards this receptor at this location. Upon completion of the construction work the view will remain similar to the existing view, albeit with a wider mainline.	Tree and shrub planting along the mainline. Refinement of earthworks to blend into existing topography,	Medium	<b>Moderate</b>	Views of the mainline will be possible.	Tree cover will provide some screening and earthworks will be blended into existing topography.	Low	<b>Slight</b>

Viewpoint receptor	Sensitivity of receptor	Operation year 1				Operation years 15-25			
		Elements of Proposed Scheme visible	Description of embedded and additional mitigation measures	Magnitude of visual effect	Overall significance of effect	Elements of Proposed Scheme visible	Description of embedded and additional mitigation measures	Magnitude of visual effect	Overall significance of effect
Viewpoint 16 and 18 – NCN7 and other recreational routes between Newtonmore and Kingussie next to the A86	High	Views will remain relatively unchanged, though there may be some loss of vegetation until mitigation planting/ seeding becomes established.	Any loss of tree planting to the both the north and southbound sides of the mainline will be replaced with tree planting.	Low	<b>Slight/negligible</b>	Views will remain relatively unchanged	Planting will be on its way to maturity and earthworks will be blended into the surroundings.	Viewpoint 16 and 18 – NCN7 and other recreational routes between Newtonmore and Kingussie next to the A86	High
Viewpoint 17 – Residents to the west of Kingussie	High/ medium	Views will remain relatively unchanged, though there may be some loss of vegetation until mitigation planting/ seeding becomes established.	Any loss of tree planting to both the north and southbound sides of the mainline will be replaced with tree planting. Planting to the Kingussie Junctions to be mindful of local context with a range of planting types.	Low	<b>Slight/negligible</b>	Views will remain relatively unchanged	Planting will be on its way to maturity and earthworks will be blended into the surroundings.	Low	<b>Negligible</b>



Viewpoint receptor	Sensitivity of receptor	Operation year 1				Operation years 15-25			
		Elements of Proposed Scheme visible	Description of embedded and additional mitigation measures	Magnitude of visual effect	Overall significance of effect	Elements of Proposed Scheme visible	Description of embedded and additional mitigation measures	Magnitude of visual effect	Overall significance of effect
Viewpoint 24 and 25 – Kerrow and Kerrow Cottage Residents	High	<p>The Proposed Scheme is moving further away from these properties, as the scheme moves offline to the south east. The southbound slip road and junction is also moving away from these properties. The proposed embankments to the A9, associated access tracks and underpass structure will be visible.</p> <p>Trees and vegetation will be removed through the construction process, altering the view and making the Proposed Scheme more visible in the short term.</p> <p>To the south west of the mainline, SuDS basin 509 and 507 will be constructed; however, there should be limited visibility from these locations.</p> <p>Tree planting will be removed to accommodate the Proposed Scheme.</p>	Tree planting will be replaced and planting to and surrounding SuDS basins. Additional woodland is proposed alongside the existing woodland to the north east of these properties.	High/ medium	<b>Substantial/ moderate</b>	The Proposed Scheme will be highly visible; if additional tree planting takes place less of the access road and mainline will be visible.	Planting will be on its way to maturity and earthworks/ SuDS basins will be blended into the surroundings.	Medium	<b>Moderate/ slight not significant</b>
Viewpoints 23 and 26 – Users of the A86 to the east of Kingussie, Glebe Pond and CNP Core Path	High	Views will remain relatively unchanged, though there may be some loss of vegetation until mitigation planting/ seeding becomes established.	Reinstate tree planting and provide a network of woodland/ shrub planting to Kingussie junction area.	High/ medium	<b>Substantial/ moderate</b>	Views will remain relatively unchanged.	Planting will be on its way to maturity and earthworks will be blended into the surroundings.	Medium/ low	<b>Moderate/ slight not significant</b>

Viewpoint receptor	Sensitivity of receptor	Operation year 1				Operation years 15-25			
		Elements of Proposed Scheme visible	Description of embedded and additional mitigation measures	Magnitude of visual effect	Overall significance of effect	Elements of Proposed Scheme visible	Description of embedded and additional mitigation measures	Magnitude of visual effect	Overall significance of effect
Viewpoint 27 – Next to River Spey	High	The existing view is relatively closed, with tree plantings screening the mainline. The Proposed Scheme removes the vegetation, leaving it exposed until mitigation planting/ seeding becomes established. The underbridge of the A9 over the B970 will be clearly visible.	The aesthetic treatment to the underbridge needs to be considered as this is a large and clearly visible structure. Tree planting to the embankment will be replaced.	Medium	<b>Moderate</b>	The majority of planting will be established by this point.	Planting will be on its way to maturity and aesthetic treatment to the underbridge.	Low	<b>Slight/negligible</b>
Viewpoint 28 – B970 General Wade’s Military Road, near properties at Ruthven	High	Within the short to mid distance it is unlikely that SuDS basin 493 will be possible, as a block of woodland will remain in place. The mainline and Spey crossing bridge will move closer towards these receptors within the view, as the Proposed Scheme moves offline to the east. The Spey bridge will be more prominent within the view due to it being a much longer structure than the existing bridge. It will however not become higher in the view.	Tree planting along the southbound carriageway will be replaced between it and SuDS basin 493. Planting around the bridge structure that will be removed will be replaced. Embankments to the A9 will predominantly be grass as per the existing due to the sensitivity of the Insh Marshes at this location.	Medium	<b>Moderate</b>	As per year 1.	Planting will be on its way to maturity and earthworks will be blended into the surroundings.	Medium/ low	<b>Slight</b>

Viewpoint receptor	Sensitivity of receptor	Operation year 1				Operation years 15-25			
		Elements of Proposed Scheme visible	Description of embedded and additional mitigation measures	Magnitude of visual effect	Overall significance of effect	Elements of Proposed Scheme visible	Description of embedded and additional mitigation measures	Magnitude of visual effect	Overall significance of effect
Viewpoint 30 – Users of farm and properties on B870 to east of Ruthven	High	The Proposed Scheme moves to the east from the baseline therefore the mainline and Spey Bridge will be more prominent within the view from these receptors. The bridge will be wider and longer but will still sit in a low position within the view. <b>Drawing 14.76 in Volume 3</b> is an indicative photomontage from this viewpoint.	The treatment of the bridge will need aesthetic consideration. Planting/ seeding proposed will largely keep the view open, as it currently is. Earthworks to the mainline will be designed to blend into the marshes. Planting/ seeding surrounding the embankment to the Spey Bridge will be replaced.	High/ medium	<b>Moderate</b>	As per year 1.	Planting/ seeding on the embankments will be mature and these will have blended into the marshes. Vegetation on the embankments to the bridge will be almost at maturity.	Medium/ low	<b>Slight</b>
Viewpoints 34, 35, and 36 – Lynchat village residents and B915 road users	High	Views from Viewpoints 34 and 36 will remain relatively unchanged, though there may be some loss of vegetation until mitigation planting/ seeding becomes established. The A9 mainline will be visible from viewpoint 35, as well as SuDS basin 530 and associated access track and the compensatory flood storage area.	Refinement of SuDS basins and planting/ seeding to their surroundings, as well as reinstatement of any lost vegetation. The compensatory flood storage area will be seeded with an appropriate wet grass mix.	High/ medium	<b>Moderate</b>	There will be views of the mainline, SuDS basin 530 and access track from viewpoint 35. Views from west and east of Lynchat will remain relatively unchanged.	Planting/ seeding will be on its way to maturity and earthworks and SuDS basins will be blended into the surroundings.	Medium/ low	<b>Slight/ negligible</b>
Viewpoint 41 and 42 – Road users of the B9152 at junction with road to Highland Wildlife Park	High	Views will remain relatively unchanged, though there may be some loss of vegetation until mitigation planting/ seeding becomes established.	The aesthetic treatment to the underbridge needs to be considered as this is a large and clearly visible structure. Any loss of tree planting to the both the north and southbound sides of the mainline, to either side of the structure, will be replaced with tree planting.	High/ medium	<b>Moderate</b>	Views will remain relatively unchanged as there will still be a bridge structure visible, albeit a wider structure, along with tree planting to either side of the road leading to the Highland Wildlife Park.	Planting will be on its way to maturity and aesthetic treatment to the underbridge.	Low	<b>Slight/ negligible</b>

### Air Quality

- 1.3.7 **Chapter 16 (Volume 1)** considers the potential impacts of the Proposed Scheme on Air Quality, and as NMU routes are not specifically detailed within the chapter, the following assessment has been undertaken to inform the potential change in air quality relative to the NMU routes identified within **Chapter 9**.
- 1.3.8 The NMU routes within 200m of the Proposed Scheme are relevant to the 1-hour mean objective for NO<sub>2</sub> (200µg m<sup>-3</sup>). Defra's Local Air Quality Management (TG16) guidance states that exceedances of the 1-hour mean objective are not likely if annual mean NO<sub>2</sub> concentrations are below 60µg m<sup>-3</sup>. The result of the Air Quality assessment shows that impacts on air quality associated with the operation of the Proposed Scheme are expected to be negligible and will not significantly alter existing air quality levels.
- 1.3.9 Maximum monitored NO<sub>2</sub> concentration for background sites is 8.5µg m<sup>-3</sup> and for roadside sites is 33.9µg m<sup>-3</sup>. These sites represent a range of relevant exposure of the NMU routes and are both well below 60µg m<sup>-3</sup>.
- 1.3.10 For the construction phase of the Proposed Scheme, the NMU routes are considered low sensitivity receptors, as public exposure to dust emissions that contribute to elevated local PM<sub>10</sub> concentrations, is expected to be transient.
- 1.3.11 Overall the construction phase, in terms of air quality, had a medium level of risk of impacts following IAQM (2014) 'Guidance on the assessment of dust from demolition and construction'. However, after appropriate mitigation, the risk of impacts will be insignificant and are not likely to affect the amenity value of the NMU routes.
- Therefore, impact on amenity value is expected to be negligible for all NMU routes for the Proposed Scheme in terms of air quality.

### Noise

- 1.3.12 **Chapter 17 (Volume 1)** considers the potential noise and vibration impacts of the Proposed Scheme. This assessment has considered sensitive receptors including residential and outdoor receptors.
- 1.3.13 **Table 1-4** below shows the potential magnitude of change for NMU receptors; refer to **Drawings 17.1 and 17.2 (Volume 3)** for noise receptor locations. Further detailed information can be found in **Appendix 17.1 and 17.2** contained within **Volume 2**.

Table 1-4: Road traffic noise levels for NMU receptors (LA10,18h dB Free-Field)

Receptor	X	Y	Do-Min 2026	Do-Min 2041	Do-Some 2026	Do-Some 2041
NMU3	269073.11	795131.25	58.7	55.6	56.1	56.4
NMU4	269333.06	795635.24	57.1	54.0	57.4	57.7
NMU2 only	269658.18	796513.54	58.8	55.8	55.6	56.0
NMU6	270408.93	796912.34	59.8	56.9	58.3	58.6
NMU5 (1)	270567.73	797561.65	47.3	45.4	46.7	47.0
NMU8	271452.43	797444.24	59.7	56.6	62.2	62.5
NMU9	271658.8	798277.96	48.2	45.2	47.3	47.7
NMU7	271993.02	797906.59	54.5	51.4	53.2	53.5
NMU10	272761.01	797992.59	43.8	41.4	43.9	44.2
NMU11	272975.13	798245.65	55.5	53.0	57.5	57.8
NMU13	273361.49	798395.21	55.2	54.6	58.3	58.6
NMU12	273508.25	798549.26	62.7	62.1	64.6	64.9
NMU14 (1)	274488.95	798394.99	47.2	46.6	48.5	48.8
NMU15	275032.71	798922.86	56.6	56.1	59.0	59.3
NMU5 (2)	275112.29	799201.38	42.4	41.8	44.9	45.2
NMU5 (3)	275658.7	799660.28	50.3	49.5	51.5	51.8
NMU16	275868.25	799230.56	50.6	49.7	52.8	53.1
NMU14 (2)	275852.34	799376.45	53.8	53.0	56.5	56.8
NMU17	275873.56	799840.66	53.3	52.4	54.3	54.6
NMU19 and NMU1	275881.51	799986.55	51.6	50.8	52.8	53.1
NMU20	276475.68	799548.87	48.1	47.3	50.2	50.5
NMU18	276035.73	799759.11	58.4	57.4	57.2	57.6
NMU23	276509.32	801057.09	56.3	56.0	56.4	56.7
NMU21	276484.12	800817.03	57.4	57.0	55.5	55.8
NMU22	277173.77	801185.74	59.8	60.1	61.6	61.9
NMU5 (4)	276856.46	800794.68	47.6	47.2	49.9	50.2
NMU23 and NMU24	277959.51	801940.15	56.6	56.1	62.4	62.7

Receptor	X	Y	Do-Min 2026	Do-Min 2041	Do-Some 2026	Do-Some 2041
NMU25 only	278313.44	802006.33	59.9	59.3	64.2	64.5
NMU26	279383.12	802887	51.2	49.4	51.8	52.1
NMU5 (5)	280407.2	802879.5	51.0	48.7	50.0	50.3
NMU27	281055.28	803753.62	51.8	50.5	53.5	53.8