

## **14 Visual**

This chapter presents the results of the DMRB Stage 3 assessment of the potential impacts resulting from the proposed scheme on views experienced by people from buildings, outdoor public areas, local roads and routes used by pedestrians, cyclists and equestrians (collectively referred to as receptors). The assessment has been undertaken following guidance provided by DMRB guidance and Guidelines for Landscape and Visual Impact Assessment 3<sup>rd</sup> Edition (GLVIA3), taking into account the results of scoping and consultation).

In this section of the A9 (Tay Crossing to Ballinluig), built receptor locations are generally scattered throughout the study area, with more substantial clusters of residents present at the small hamlets/villages of Inchmagrannachan, Dalguise, Dowally, Guay, Kindallachan and Logierait. Outdoor locations used by receptors, including the Highland Main Line railway, other roads, and pedestrian, equestrian or cycle routes, are also spread throughout the study area. The existing A9 is already a notable feature in views across and along the valley of the River Tay as it follows the floor of the strath, although established forestry plantations and mature woodland areas on either side of the valley help to provide some screening of the road and vehicles on it. The largely wooded hills enclosing the valley generally limit more distant views towards the strath and the A9.

The design of the proposed scheme has been developed through a process involving engineering, environmental and landscape specialists, in order to reduce visual impacts and integrate it with the surrounding landscape. As part of the design, landscape mitigation proposals were developed to reduce visual impacts. These include embedded mitigation measures developed through an iterative design process (such as the vertical and horizontal route alignment), grading out of embankment and cutting slopes to blend with existing landforms, steepening of slopes and introduction of retaining walls to minimise woodland loss, and new planting to screen the proposed scheme and help further integrate it with the surrounding landscape. The landscape design also considered opportunities to maintain or enhance existing open views of the surrounding landscape, where these are currently a key landscape/visual characteristic. The effectiveness of any new woodland/scrub/boundary planting is expected to increase over time as vegetation matures.

Visual impacts of the proposed scheme have been compared against the existing baseline visual situation, in which the existing A9 is already visible from a number of locations, and would be limited to some extent by screening provided by existing landform, built elements and vegetation. Impacts would typically occur where a receptor is close to the proposed scheme, or where open views are possible towards it. The impacts would generally be associated with physical aspects of the proposed scheme itself, or from the movement of traffic upon it. People at 27 built receptor and 18 outdoor receptor locations are predicted to experience significant visual impacts during construction. During the initial operational stage of the proposed scheme, people at 27 built receptor and 17 outdoor receptor locations are predicted to experience significant visual impacts in the winter of the year of opening – due to loss of existing roadside vegetation and the increased prominence of new road infrastructure (mainly earthworks, overbridges and new/revised side roads) – when compared to their current visibility of the existing A9. The majority of the affected visual receptors would be located at properties in and around the Dowally, Guay, and Kindallachan areas, and from Haugh of Kilmorich to Westhaugh of Tulliemet. People on outdoor public routes, including Regional Cycle Route 83 and the paths between Dowally and Haugh of Kilmorich, would also be significantly affected, largely due to these routes running alongside the proposed scheme (with re-routing taking place).

By the summer, 15 years after the opening of the proposed scheme, mitigation planting – mostly in the form of new woodland, hedgerows and scattered individual trees that would have become established – is predicted to have reduced impacts such that people's views at only 12 built receptor locations and 10 outdoor receptor locations would be affected significantly.

### **14.1 Introduction**

- 14.1.1 This chapter presents the DMRB Stage 3 assessment of the proposed scheme in relation to the impacts on the visual amenity and views experienced by people from publicly accessible viewpoints and nearby buildings, including residential properties.
- 14.1.2 A separate but inter-related assessment of the effects of the proposed scheme upon the views experienced by travellers on the A9 and upon journey lengths, access and general amenity for pedestrians, cyclists, equestrians (referred to hereafter as Non-Motorised Users (NMUs)) on footpaths, cycle routes, and informal access to land and paths is reported in Chapter 9 (People and Communities – All Travellers). A landscape assessment, which considers the impacts on the landscape resource, is reported in Chapter 13 (Landscape).

- 14.1.3 This chapter is supported by Appendix A14.1 (Built Receptor Assessment) and Appendix A14.2 (Outdoor Receptor Assessment), in addition to the following figures:
- Figure 14.1: Zone of Theoretical Visibility – Existing A9;
  - Figure 14.2: Zone of Theoretical Visibility – Proposed Scheme;
  - Figure 14.3: Visual Impact on Built Receptors;
  - Figure 14.4: Visual Impact on Outdoor Receptors;
  - Figure 14.5: Viewpoint Locations; and
  - Figures 14.6 to 14.16: Visualisations.
- 14.1.4 The following figures that accompany Chapter 9 (People and Communities – All Travellers) and Chapter 13 (Landscape) are also of relevance to this chapter:
- Figure 9.1: Existing NMU Routes;
  - Figure 9.2: Potential Impacts on NMU Routes and Proposed Mitigation;
  - Figure 9.3: View from Existing A9;
  - Figure 13.5: Landscape and Ecological Mitigation; and
  - Figure 13.6: Cross-sections.

## **14.2 Approach and Methods**

### **General**

- 14.2.1 The visual assessment was undertaken in accordance with DMRB Interim Guidance Note (IAN) 135/10 Landscape and Visual Effects Assessment (The Highways Agency 2010), with consideration of current good-practice methodology included in Guidelines for Landscape and Visual Impact Assessment 3rd Edition (GLVIA3) (the Landscape Institute 2013). GLVIA3 is more recently published than IAN 135/10 and was therefore taken into account in assigning significance, as it provides greater clarity with regard to:
- the interrelationship between susceptibility and value in determining sensitivity to the proposed scheme; and
  - the interrelationship between size or scale, geographical extent of influence, duration and reversibility in determining magnitude of change.
- 14.2.2 A staged approach to the assessment was adopted, comprising the following:
- scoping and consultation, including agreement of the approach to the assessment and the extent of the study area;
  - baseline assessment – a description of the landscape resource within the study area following desk study and fieldwork;
  - assessment of the value, susceptibility and sensitivity of the visual receptors;
  - description of potential impacts;
  - development of proposed mitigation measures;
  - assessment of temporary residual impacts and their significance during the construction phase; and
  - detailed assessment of residual impacts and their significance during the operational phase (year 1 winter and year 15 summer).
- 14.2.3 The approach to the assessment and design of the landscape and visual mitigation proposals has also been informed by the following documents:
- Fitting Landscapes: Securing more Sustainable Landscapes (Transport Scotland, 2014); and

- Planning Advice Note (PAN) 1/2013: Environmental Impact Assessment (Scottish Government, 2013).

- 14.2.4 The assessment identifies and assesses the effects of change brought about by the proposed scheme on specific views and on the general visual amenity experienced by people. In accordance with IAN 135/10, separate assessments were undertaken for the following scenarios:
- during the construction period, assuming a maximum visibility or maximum perceived change situation (i.e. when construction activity is at its peak for any given view);
  - in the winter of the proposed year of opening, taking account of the completion of the proposed scheme and the traffic using it, which represents a maximum-impact situation, before any planted mitigation can take full effect; and
  - in the summer of the fifteenth year after the proposed year of opening, taking account of the completion of the proposed scheme and the traffic using it, which represents a least-impact situation, where any planted mitigation measures can be expected to be reasonably effective.
- 14.2.5 In addition, qualitative commentary has been provided on the likely longer-term changes in impact significance beyond 15 years. This is in recognition that in many areas the proposed planting is expected to take considerably longer to reach a level of maturity equivalent to that of areas of woodland affected by the proposed scheme.
- 14.2.6 The approach and methods have been informed by the recommendations made in the A9 Dualling Programme Strategic Environmental Assessment (SEA) Report (Transport Scotland, 2013). In relation to the Visual Assessment, the SEA recommended that opportunities for additional on- and off-site screening to reduce the impact of the proposed scheme are explored and that the existing dramatic landscape experience/narrative should be maintained and, where possible, enhanced.
- 14.2.7 The approach to the development of mitigation proposals has also been informed by professional judgement and experience, and liaison with other relevant disciplines.

### **Scoping and Consultation**

- 14.2.8 The principal aim of the scoping and consultation was to enable agreement of the approach to the assessment of the key issues to be addressed by the DMRB Stage 3 assessment.
- 14.2.9 A scoping report was submitted in August 2015, while consultation has also been undertaken throughout the Stage 2 and 3 assessment processes, including with the Environmental Steering Group (ESG). Members of the ESG and consultees of the scoping report with particular relevance to this chapter include Scottish Natural Heritage (SNH), Perth & Kinross Council (PKC) and Historic Environment Scotland (HES). In addition, consultation has also been undertaken through the Landscape Forum established for the overall A9 Dualling Programme, which includes SNH, PKC, The Highland Council (THC) and the Cairngorms National Park Authority (CNPA). This has included consultation across all A9 dualling projects on the approach to assessment, identification of viewpoint locations, and a review of aspects of the proposed scheme including proposals for landscape and visual mitigation (including consideration of aspects such as slope gradients and replacement woodland opportunities).
- 14.2.10 Further information is provided in Chapter 7 (Consultation and Scoping).

### **Study Area**

- 14.2.11 The study area for the assessment was informed by desk studies and fieldwork, in addition to the preparation of visibility mapping for the proposed scheme. A study area comprising a 5km offset from the proposed scheme was considered following professional judgement of the likely impacts, to reflect the area in which the visual amenity of receptors may be affected significantly.
- 14.2.12 Within this 5km study area, Zones of Theoretical Visibility (ZTVs) were prepared for the existing A9 and for the proposed scheme, as shown on Figures 14.1 and 14.2. These ZTVs were produced using a bare-earth Digital Terrain Model (DTM) and, as such, illustrate the maximum extent of the area from

which the existing A9 and the proposed scheme (including vehicles) may be visible<sup>1</sup>. The ZTVs do not, however, take into account screening or filtering of visibility by local landform, built features or vegetation, which were considered during subsequent site survey work and taken account of in this assessment.

### **Baseline Conditions**

- 14.2.13 The first stage of the assessment is to establish the baseline visual amenity and views against which subsequent change as a result of the proposed scheme can be identified.
- 14.2.14 Baseline conditions are those that exist at the time of desk and site survey, but also take into account both future changes that are assumed certain (e.g. a proposed development alongside the existing A9 with planning permission or under construction that would result in changes to existing views, or where the receptors would have views of the proposed scheme), as well as considering likely future changes to the landscape that could affect existing visual amenity (e.g. harvesting and re-stocking of commercial forestry plantations at Rotmell).

### Desk-based Assessment

- 14.2.15 Baseline information was collected through a desk study, including review of the following information sources:
- 1:5,000, 1:10,000, 1:25,000 and 1:50,000 Ordnance Survey (OS) maps;
  - Google Earth web-based photography;
  - aerial photography provided by Transport Scotland (BLOM Survey, 2014);
  - Jacobs' GIS environmental constraints datasets (obtained through consultation with relevant stakeholders);
  - A9 Dualling Programme. Strategic Environmental Assessment (SEA) Environmental Report (Transport Scotland, 2013);
  - A9 Dualling Programme. Strategic Environmental Assessment (SEA). Environmental Report Addendum. Appendix F – Strategic Landscape Review Report (Transport Scotland, 2014);
  - Perth & Kinross Council: Core Paths Plan (PKC, 2012);
  - Perth & Kinross Council: Highland Area Local Plan (PKC, 2000);
  - Perth & Kinross Council: Landscape Supplementary Guidance (PKC, 2015);
  - Perth & Kinross Council Local Development Plan (PKC, 2014);
  - TAYplan: Scotland's SusTAYnable Region. Strategic Development Plan 2012-2032 (Strategic Development Planning Authority for Dundee, Angus, Perth and North Fife, 2012);
  - Tayside Landscape Character Assessment: Scottish Natural Heritage Review 122 (1999); and
  - The Special Qualities of the National Scenic Areas, Scottish Natural Heritage Commissioned Report No.374 (2010).

### Site Walkover and Surveys

- 14.2.16 Field surveys were carried out during both winter and summer by a team of Jacobs' landscape architects on foot and by car. Information on landscape features and characteristics was collected, as well as photographs of landscape features likely to be physically affected and photographs to/from key receptor locations and viewpoints where people would have visibility of the proposed scheme.

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<sup>1</sup> The ZTVs add 4.5m to the existing A9 or proposed scheme, in order to take into account, the movement of traffic, including HGVs, and potential impacts arising from this.



### Impact Assessment

- 14.2.17 The impact assessment has been undertaken using the approach outlined below, where the level of significance is assessed based on the sensitivity to change of the visual receptor (taking into account the value of views and susceptibility to change), as well as the magnitude of change that would be experienced during construction and operation of the proposed scheme.
- 14.2.18 In accordance with GLVIA3, the assessment of sensitivity for visual assessment combines the susceptibility of the receptor (people) to changes in visual amenity arising from the specific type of development proposed, and the value attributed to the existing views.

#### *Value of Views*

- 14.2.19 Value attached to views can be indicated by the presence of heritage assets and planning designations or expressed through published or interpretive material. The criteria in Table 14.1 were used, along with professional judgement, to help determine the value of the views experienced by each visual receptor.

**Table 14.1: Value of views**

Value	Views
High	Views from within or looking towards landscapes of international or national importance, typically recognised by designation or from a highly popular visitor attraction where the view forms an important part of the experience, or where the view has important cultural associations.
Medium	Viewpoints from within or looking towards landscapes of regional/district importance typically recognised by designation, or from a moderately popular visitor attraction where the view forms part of the experience, or where the view has a local cultural association.
Low	Viewpoints within landscapes with no designation, and where a view is not associated with a visitor attraction and has little or no cultural associations.

#### *Visual Receptor Susceptibility to Change*

- 14.2.20 The susceptibility of visual receptors, as defined in GLVIA3, is mainly a function of *‘the occupation or activity of people experiencing the view at particular locations; and the extent to which their attention or interest may therefore be focused on the views and the visual amenity they experience at particular locations’*. The criteria in Table 14.2 (based on GLVIA3) were applied, along with professional judgement, to evaluate the susceptibility of different types of receptors.

**Table 14.2: Visual receptor susceptibility to change**

Susceptibility	Receptor Type
High	<ul style="list-style-type: none"> <li>Residents.</li> <li>People engaged in outdoor recreation, including users of public rights of way and promoted cycle routes, whose attention is likely to be focused on the landscape and on particular views.</li> <li>Visitors to heritage assets or other attractions where views of the surroundings are an important part of the experience.</li> <li>Communities where views contribute to the landscape setting and are enjoyed by residents.</li> <li>Travellers on scenic routes where awareness of views is likely to be higher than on other routes.</li> </ul>
Medium	<ul style="list-style-type: none"> <li>Travellers on road, rail or other transport routes.</li> <li>People at their place of work whose focus may be on the setting or surroundings as part of their work.</li> </ul>
Low	<ul style="list-style-type: none"> <li>People engaged in outdoor sport or recreation, which does not involve appreciation of views.</li> <li>People at their place of work, whose attention may be focused on their work and where the setting is not important to the quality of working life.</li> </ul>

#### *Evaluation of Visual Receptor Sensitivity*

- 14.2.21 The sensitivity of visual receptors to changes in their views was evaluated in accordance with the criteria provided in Table 14.3, based on the susceptibility to change of the receptor and the value of views. All residential receptors were assessed to be of high sensitivity as they are considered to be particularly susceptible to changes in their visual amenity. Occupants of properties with views of the proposed scheme are more likely to experience views for longer periods of time than other receptors

and therefore have a higher value. Where two or more outdoor receptors of different sensitivity follow exactly the same route (e.g., a road and a cycle path), they were assessed as one outdoor receptor and were assigned whichever sensitivity was the higher/highest in order to identify the scenario with the greater/greatest potential for a significant impact on a given route.

**Table 14.3: Visual receptor sensitivity to change**

Sensitivity	Criteria
High	Receptors where the changed view is of high value and/or where the receptor will experience an appreciable change to visual amenity by reason of the nature of activity and their expectations (receptors where the view is important to users will be considered to be of high sensitivity).
Medium	Receptors where the changed view is valued but not critical to amenity and/or the nature of the view is valued but not a primary consideration of the users (receptors where users are likely to spend time outside of participation in their activity looking at the view and users of workplaces with windows that take advantage of views).
Low	Receptors where the changed view is unimportant and/or users are not sensitive to change (receptors where users are unlikely to consider the views an important element of their activity will generally be assessed to be of low sensitivity).

Magnitude

14.2.22 As noted in GLVIA3, the magnitude of change that would be experienced by the identified visual receptor relates to the size or scale of change, its geographical extent, and the duration and reversibility of change. IAN 135/10 notes that the nature of change, distance, screening and the direction and focus of the view are also important considerations.

14.2.23 Magnitude of visual change was assessed on a scale of high, medium or low, in line with the criteria provided in Table 14.4.

**Table 14.4: Visual receptor magnitude**

Magnitude	Criteria
High	Where the proposed scheme or elements of it will dominate the view and fundamentally change its character and components over a large geographic area.
Medium	Where the proposed scheme or elements of it will be noticeable in the view, affecting its character and altering some of its components and features over a notable geographic area.
Low	Where the proposed scheme or elements of it will be only a minor part of the overall view, over a small geographic area, and likely to be missed by the casual observer and/or scarcely appreciated.

Impact Significance

14.2.24 The degree of significance of impacts on visual amenity has been determined through consideration of both the sensitivity of the visual receptors to changes in their views and the predicted magnitude of change as a result of the proposed scheme. Significance is defined as Negligible/None, Slight, Moderate or Substantial, in addition to being either adverse or beneficial as shown in Table 14.5. These criteria represent thresholds on a continuum and, where appropriate, the intermediate categories of Moderate/Substantial, Slight/Moderate and Negligible/Slight were also used in the assessment. Where an impact of **Moderate** significance or greater is identified, this is considered to be a significant impact in the context of this assessment.

**Table 14.5: Significance of visual impacts**

Level of Impact	Criteria
<b>Substantial</b>	<ul style="list-style-type: none"> <li>Adverse: The proposed scheme would cause major deterioration to a view or loss of a view from a highly sensitive receptor, and/or would constitute a major discordant element in the view.</li> <li>Beneficial: The project would lead to a major improvement in a view from a highly sensitive receptor.</li> </ul>
<b>Moderate</b>	<ul style="list-style-type: none"> <li>Adverse: The proposed scheme would cause obvious deterioration to a view from a moderately sensitive receptor, or perceptible damage to a view from a more sensitive receptor.</li> <li>Beneficial: The proposed scheme would cause obvious improvement to a view from a moderately sensitive receptor, or perceptible improvement to a view from a more sensitive receptor.</li> </ul>
<b>Slight</b>	<ul style="list-style-type: none"> <li>Adverse: The proposed scheme would cause limited deterioration to a view from a receptor of medium sensitivity, or cause greater deterioration to a view from a receptor of low sensitivity.</li> </ul>

Level of Impact	Criteria
	<ul style="list-style-type: none"> <li>Beneficial: The proposed scheme would cause limited improvement to a view from a receptor of medium sensitivity, or would cause greater improvement to a view from a receptor of low sensitivity.</li> </ul>
Negligible/None	<ul style="list-style-type: none"> <li>No perceptible change in the view.</li> </ul>

### Limitations to Assessment

- 14.2.25 Some parts of the DMRB Stage 3 field assessment work were undertaken during the summer months with the trees in leaf, so professional judgment was required at these locations to anticipate the likely visibility of the proposed scheme in the winter months.
- 14.2.26 A number of visual receptor locations were not readily accessible, so it was necessary to estimate the likely visibility of the proposed scheme through walkover surveys of the surrounding areas assisted by use of ZTVs and web-based photography.
- 14.2.27 Construction impacts were assessed based on the probable scenario using professional judgement and experience, in addition to the constructability review undertaken by the engineering team. Limited information about the details of the construction phase was available at the time of assessment, bearing in mind that the proposed scheme would be procured under a design-and-build type contract. The locations and details of the construction compounds were not available during DMRB Stage 3 assessment as they would be subject to separate consents obtained by the contractors.
- 14.2.28 Proposed roadside signs over 3m high, as shown on Figures 14.3 and 14.4, have been included in the assessment. The locations of these signs are approximate only.

## 14.3 Baseline Conditions

- 14.3.1 As noted in IAN135/10, the assessment of landscape and visual effects are separate but linked procedures. The visual context and baseline description of the study area is therefore incorporated to a considerable extent in Chapter 13 (Landscape) and supporting Appendix A13.1 (Local Landscape Character Areas (LLCAs)).

### Visual Receptors

- 14.3.2 Visual receptor locations (places where individuals and/or groups of people have the potential to be affected by views of the proposed scheme) within the study area largely comprise residential properties within the settlements of Dowally, Guay and Kindallachan, together with individual farmsteads along the route corridor. In addition to these built receptor locations, there are a number of outdoor receptor locations including roads, the Highland Main Line railway, and recreational walking and cycling routes, which are frequently located at scenic locations.
- 14.3.3 The existing A9 is a notable feature in many views across the Tay valley as it runs along the eastern edge of the valley floor, although established mature woodland areas provide some screening to/from the A9. The topography of the area generally limits views to within the valley itself, with the rising valley sides adjoined by gradually increasing hills to the east and west helping to screen more distant views into the area.
- 14.3.4 Following a desk-based assessment, a draft list of potential visual receptor locations within the study area was compiled. These were then visited on site in order to confirm or revise the list as necessary, record and photograph the existing baseline views and consider likely changes to them as a result of the proposed scheme. As a result, 78 built receptor locations and 32 outdoor receptor locations and routes with potential for people to experience significant visual impacts were identified within the study area. The built receptor locations are shown on Figure 14.3 and listed in Appendix A14.1. Outdoor receptor locations and routes are shown on Figure 14.4 and listed in Appendix A14.2.

### Built Receptors

- 14.3.5 The study area contains no sizeable settlements, but there are small villages, hamlets and clusters of properties together with scattered farmsteads set along the strath floor and lower valley sides. The

main settlements alongside the eastern side of the A9 comprise Dowally, Guay, and Kindallachan, with Logierait lying immediately north-west of the proposed scheme and Dalguise sited to the west on the opposite side of the Tay valley. The location and nature of views from these small settlements are described below.

#### *Dalguise*

- 14.3.6 Dalguise is situated on the western side of Strath Tay at the edge of Craigvinean Forest. The settlement is separated from the existing A9 by the River Tay, the Highland Main Line railway and the B898. It comprises scattered clusters of single- and two-storey houses and cottages, and the 18th-century mansion of Dalguise House. The author Beatrix Potter spent her childhood holidays at Dalguise House, which is now used as a children's activity centre.
- 14.3.7 A strong sense of enclosure is experienced within the settlement, particularly in the western part, which is surrounded by dense woodland. Views to the existing A9, which lies approximately 1km from Dalguise, are heavily screened by woodland and scattered trees within fields, although views of the road and its traffic are more apparent in winter months when trees are not in leaf. Where available, views east from Dalguise comprise fields, blocks of woodland, and the hills beyond (refer to Photograph 14.1).

**Photograph 14.1: View from Core Path DUNK/130/4 and local road, Dalguise looking east across the strath**



#### *Dowally*

- 14.3.8 Dowally is located immediately to the east of the existing A9 and surrounds the banks of the Dowally Burn. The village is formed by scattered houses and cottages set along the burn, and includes an electricity sub-station, craft centre, and Dowally Church and its associated graveyard. To the west of Dowally, beyond the existing A9, lies Dowally Farm and a row of chalets and static caravans (refer to Photograph 14.2).
- 14.3.9 The village is accessed from the existing A9 and there are clear short-distance views of the road from the single-storey cottages and craft centre located on the north-western side of Dowally. These views towards the existing A9 are backed by fields enclosed by hedgerows, tree lines and hills topped with woodland. In contrast, properties in the southern and eastern part of the village are set within dense woodland, which creates a sense of enclosure and blocks or limits views beyond (refer to Photograph 14.3).



Photograph 14.2: View from Core Path DUNK/109 and Right of Way TP64, adjacent to Dowally Cottages, Dowally



Photograph 14.3: View looking west from access track, Core Path DUNK/109 and Right of Way TP64, adjacent to Bank Cottage, Dowally



### Guay

- 14.3.10 The small village of Guay is located on the rising hill slopes immediately to the east of the existing A9 and consists of houses and cottages and a local school set along Sloggan Burn. These buildings are both single- and two-storey, with a mixture of older stone houses and newer cottages of more contemporary style.
- 14.3.11 Dense woodland to the south and east enclose scattered houses and Guay School, restricting views beyond (refer to Photograph 14.4). However, from western properties, including Guay Farmhouse, there are clear short-distance views of the existing A9 and its traffic (refer to Photograph 14.5). Views across the valley from the western edge of Guay are backed by rugged hills and dense woodland on hill slopes within Craivinean Forest.

Photograph 14.4: View looking west from the Ballinluig to Guay Road, adjacent to Guay Lodge – the Dutch barn and cattle shed at Guay Farmhouse are visible to the right of the image



**Photograph 14.5: View from local road (General Wade's Military Road), RCR83 and Core Path DUNK 140/1, adjacent to Guay Farmhouse, Guay**



*Kindallachan*

- 14.3.12 Kindallachan, which lies immediately to the east of the existing A9, comprises houses and cottages next to Kindallachan Burn on either side of the old A9 road (refer to Photograph 14.6). Properties in the east are enclosed by dense woodland, with little or no visibility to the existing A9, while single-storey stone houses and cottages to the west have open or partly filtered views to the existing A9. Where the existing A9 is visible, it is seen in the context of views towards fields, tree lines and dense woodland and rugged hills beyond. Six new houses are planned to the north of the village, and therefore have been considered in the assessment, as previously noted in Section 14.2, as it is anticipated they will be built prior to construction of the proposed scheme.

**Photograph 14.6: View looking south from RCR 83 and Core Path MASG/127/1, adjacent to Kindallachan Cottages, Kindallachan**

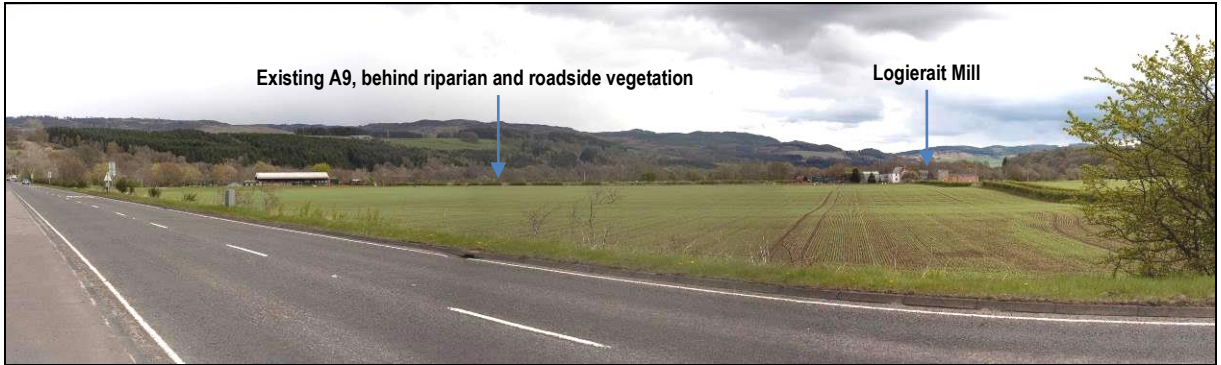


*Logierait*

- 14.3.13 Logierait is a small cluster of several houses, cottages and a public house on the A827, sited to the north-west of the northern end of the proposed scheme. The A827, which connects with the A9, is also a promoted tourist route and core path. From south of Ballinluig to Logierait the alignment of the A827 is also followed by Regional Cycle Route (RCR) 83, which then connects in the village with National Cycle Route (NCR) 7. A few dwellings at the easternmost end of the hamlet experience open views south-eastwards across the strath towards the A9, although the existing road and traffic are mostly screened or filtered by vegetation (refer to Photograph 14.7).



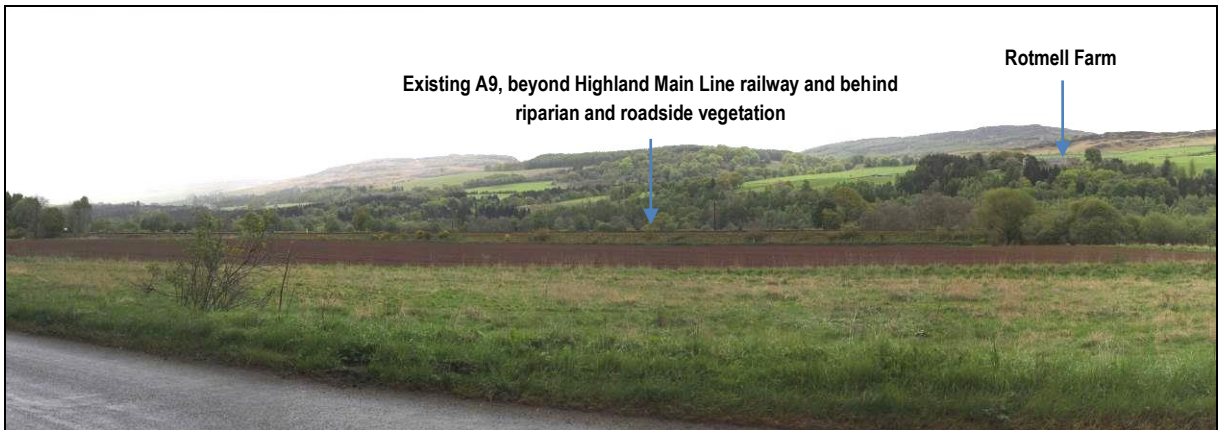
Photograph 14.7: View looking east from A827, RCR 83 and Core Path MASG/125/1, Logierait



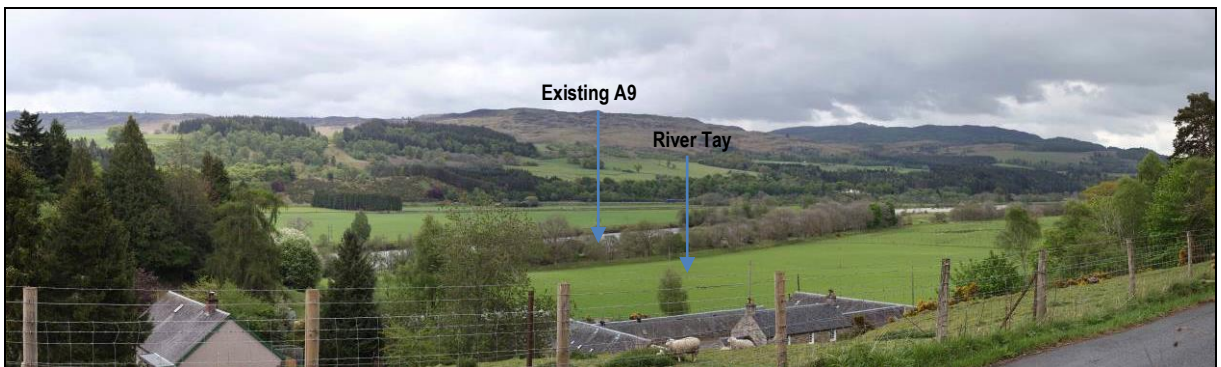
*Scattered Properties*

- 14.3.14 Aside from the hamlets and villages noted above, there are a number of other properties and farmsteads scattered on lower hill slopes and within the valley of the study area. These are mainly accessed from the existing A9/B898/General Wade's Military Road/Guay to Ballinluig Road, and are generally oriented towards the valley to take advantage of views along the strath.
- 14.3.15 The study area is popular with tourists and visitors, with holiday accommodation located at Inchmagrannachan Cottages and Caravan Park at the southern end of the study area. These properties lie to the west of the River Tay on the B898, close to the Highland Main Line railway, with woodland, roadside trees and hedgerows mainly limiting visibility of the existing A9 approximately 450m to the east, although there some open views of the road and traffic across the valley (refer to Photographs 14.8 and 14.9). Four new houses are currently under construction at Inchfield.

Photograph 14.8: View looking east from B898 and NCR 77 near Upper Woodinch



Photograph 14.9: View looking east from B898 and NCR 77, adjacent to Balmacneil Farm (visible in the foreground)



- 14.3.16 Further north on the B898, views of the existing A9 from Dalmarnock Farm, which lies 700m to the west on the edge of the open valley, are partly filtered by scattered trees and roadside woodland. Continuing north on the B898, views of the existing A9 from scattered properties including Castle Peroch, Kinnaird House and Cottages, Balmacneil, Ferry Cottage and Kincaigie House are also filtered by intervening trees and woodland.
- 14.3.17 Scattered properties along General Wade's Military Road, including Woodlands, Ledpetty Lodge and Warren Lodge, are set above the existing A9 within dense woodland, and views of the existing road and/or its traffic are therefore generally restricted. Rotmell Farm, Cottages, Roar Lodge and St Colme's also sit above the existing A9, and the intervening densely wooded slopes largely restrict visibility.
- 14.3.18 At the northern end of the study area, there are open short-range views of the A9 and its traffic from properties including Westhaugh of Tullimet, Haugh of Kilmorich, Haugh Cottage South and Haugh Cottage North, Inch Cottage and Inch Farm.

### Outdoor Receptors

#### *B898 Road Users*

- 14.3.19 The B898 joins the existing A9 next to the Tay Crossing, on the western side of the river. It runs northwards along the valley, broadly parallel to the existing A9 and the Highland Main Line railway, and forms part of the longer NCR 77. It follows the edge of the strath where it merges with the hill slopes, and the rising landform, dense woodland and roadside vegetation create a strong sense of enclosure along the western edge of the road; however, there are frequent open or filtered views across the fields, hedgerows and tree lines of the valley towards the wooded hills to the east (refer to Photograph 14.10).
- 14.3.20 The B-road connects the settlements and houses of Inchmagrannachan, Dalmarnock, Dalguise and Kinnaird Estate. On many stretches of the road, such as from Balmacneil and Kincaigie House, there are views of the existing A9 on the other side of the valley, often set within woodland and visible against a backdrop of low rugged hills (refer to Photograph 14.9).

**Photograph 14.10: View looking south-east from B898 and NCR 77, Easter Dalguise**



#### *General Wade's Military Road – Road Users*

- 14.3.21 General Wade's Military Road runs along the eastern side of the Tay valley, from Dunkeld to Rotmell Cottages south of Dowally, and from Guay to Kindallachan. Between Dunkeld and Rotmell Cottages, the road is used by both vehicles and cyclists as this section also forms part of RCR 83. The military road is cut into the hillside and set within dense woodland, which for the majority of the route limits visibility beyond and directs views along the line of the road itself.
- 14.3.22 The existing A9 is visible from the road through occasional breaks in the vegetation, where it lies across the valley from Inchmagrannachan and Dalmarnock to the south, and where it runs west of Rotmell Farm. Uninterrupted views are oblique, intermittent and fleeting in duration, given the extent and the angle of the view towards the existing A9 and the speed of travellers along the military road.



- 14.3.23 Between Guay and Kindallachan, the road narrows and provides local vehicular access as well as being used by walkers. The road sits within the valley at a similar elevation to the existing A9, and there are generally open views across a field towards it (refer to Photograph 14.11). In contrast, from Haugh of Kilmorich and further north, the path is located within dense woodland, restricting views in all directions.

**Photograph 14.11: View looking westwards from General Wade's Military Road, Core Path DUNK/140/1/RCR 83, between Guay and Kindallachan**



*Rail Users*

- 14.3.24 The Highland Main Line railway is located within the valley and runs broadly parallel to the existing A9. Between Inchmagrannachan and Dalguise, the railway line runs close to the B898 and is separated from the A9 by fields and the River Tay, before it crosses the Tay and continues along the eastern side of the valley. From Guay to Kindallachan, the line and the existing A9 run directly adjacent to one another, and north of Kindallachan they are separated by a line of fields.
- 14.3.25 In southern parts of the study area, views from the railway line towards the existing A9 are screened by dense woodland and roadside vegetation, although from Dalmarnock northwards there are views of the road. These become most apparent in the north of the study area once the railway crosses the River Tay near Dowally, in particular from Guay until Kindallachan. Travellers on the railway line experience views along the river valley of the surrounding fields backed by rugged hills clothed in dense woodland.

*Cyclists on NCR 77*

- 14.3.26 NCR 77, which is also known as the Salmon Run route, runs between Dundee and Pitlochry via Perth. Within the study area it follows the B898, on the opposite side of the valley to the existing A9. NCR 77 runs along the foot of the adjoining hill slopes, which create a strong sense of enclosure along the western edge, often further emphasised by woodland and roadside vegetation.
- 14.3.27 There are existing open views and views partly filtered by roadside vegetation looking across the valley to the hills on the eastern side. In the northern part of the study area, from Balmacneil and at Kincaigie House, the slope of the land and limited vegetation permit uninterrupted views of the existing A9, although these are mainly oblique and fleeting in duration.

*Cyclists on RCR 83*

- 14.3.28 RCR 83 runs between Dunkeld and Ballinluig. It is located to the east of the existing A9 and in some locations lies immediately adjacent to it.
- 14.3.29 In the south of the study area RCR 83 runs through dense woodland following General Wade's Military Road until Rotmell Farm (refer to Photograph 14.12). From here, it generally runs adjacent to the existing A9 except near Westhaugh of Tulliemet, between Guay and Kindallachan and north of Dowally, where some remaining sections of the original General Wade's Military Road allow the cycle route to move slightly further away from the road.

- 14.3.30 There is intermittent visibility of the existing A9 from RCR 83, with uninterrupted views in many areas. Mature woodland and undulating topography result in little or no visibility from the cycle route at the southern end of the study area and along General Wade's Military Road through Kindallachan.

**Photograph 14.12: View from General Wade's Military Road and RCR 83 south of St Colme's and Rotmell Farm – the existing A9 is located beyond woodland to the left of the image**



*Walkers on Designated Routes and Local Paths*

- 14.3.31 Within the study area, designated footpaths comprise core paths and rights of way. Local paths are also considered. In the south of the study area to the east of the A9, a core and local path network lies along the hill slopes of Craig a Barns, the core path (receptor O5) running broadly parallel to General Wade's Military Road and the A9 but separated from both roads by dense plantation woodland. On the other side of the valley at the south-western end of the study area there is also an extensive path network traversing the slopes of Tay Forest Park, although views of the A9 are blocked or heavily filtered by woodland. In this southernmost section, immediately west of the A9, short sections of local paths also run alongside the River Tay, parallel or close to the existing road and accessed from it.
- 14.3.32 From Rotmell Farm, the core path on the eastern hill slopes continues to run northwards, with open views westwards across the valley until it connects with the path network along the wooded glen of Dowally Burn. At a lower level, from the junction to Rotmell Farm northwards, another core path runs immediately adjacent to the existing A9 towards Guay, connecting with the core and local paths in Guay and Dowally villages. The core path diverges eastwards of the existing A9 and runs along General Wade's Military Road through and beyond Kindallachan, with visibility reduced by mature woodland and topography, then recommences to run immediately alongside the existing A9 to the northernmost end of the proposed scheme. Local path networks, mainly set in woodland on the eastern slopes, connect with the core path between Guay and Kindallachan and in the vicinity of Cuil-an-Duin. West of the A9, a long riverside local path, which is accessed from the A9, has open views across the floodplain of the road and its traffic, and runs from south of Dowally Farm to Haugh of Kilmorich.

*Recreational Receptors*

- 14.3.33 The Tay River (Dunkeld) National Scenic Area (NSA) and Tay Forest Park are located across central and southern parts of the study area. They are popular recreational resources, and path networks throughout the NSA and Forest Park enable views along and across the strath. Designated paths with potential visibility to the proposed scheme, as well as the Creag an Uamhaidh cairn within the Forest Park (refer to Photograph 14.13), have been included as outdoor receptor locations in this chapter. Additional information on non-designated local paths within the study area is provided in Chapter 9 (People and Communities – All Travellers).
- 14.3.34 The Hermitage Garden and Designed Landscape (GDL), Dunkeld House GDL and Murthly Castle GDL are located within the study area to the south of the proposed scheme, although there would be no visibility from these designed landscapes due to intervening landform and vegetation. This also applies to Dunkeld Battlefield, and further information on these designations is contained in Chapter 15 (Cultural Heritage).

- 14.3.35 Other recreational attractions within the study area include Dunkeld House Hotel within Dunkeld House GDL to the south of the proposed scheme, Dalguise House Activity Centre, Kinnaird Estate, and Dowally Craft Centre and Café. Recreational activities include: cycling along NCR 77, from which views across the strath to the River Tay and wooded slopes are experienced; walking among the surrounding hills, including Deuchary Hill and to elevated lochs and other high points; fishing on the Rivers Tay and Garry; and shooting and stalking on farmland, moorland and woodland. Where relevant, assessment of these receptors has been provided in Section 14.6.
- 14.3.36 As previously noted in Section 14.2, many of the plantations and woodlands within the study area, as well as being recreational resources, are also commercial (both Forestry Commission and privately owned). There may therefore be some changes to the baseline views from publicly accessible paths that currently run through a commercial plantation, if it is due to be felled prior to construction of the proposed scheme.

**Photograph 14.13: View from Creag an Uamhaidh cairn in Craigvinean Forest – the existing A9 is located immediately beyond the River Tay**



## **14.4 Potential Impacts**

- 14.4.1 This section provides a brief summary of the potential visual impacts that could occur during construction and operation. Mitigation of visual impacts would be achieved predominantly through refinement of horizontal and vertical alignment, earthworks and landscaping measures, which are incorporated into the design as assessed and reported in this Environmental Statement (ES) and described in detail in Chapter 4 (Iterative Design Development) and Chapter 5 (The Proposed Scheme). The proposed southbound widening limits the potential visual impact of the proposed scheme to some extent by following the alignment of the existing A9. The key mitigation measures, such as road alignment, limiting the extent of the cutting slopes (for example through use of retaining walls), minimising loss of woodland that provides screening, and design of the bridge structures are all embedded in the design. It is therefore not practicable to undertake an assessment of the potential visual impacts of the construction and the operational scheme in the absence of mitigation.

### **Construction**

- 14.4.2 The following activities typically associated with the construction of road schemes generally cause temporary visual impacts on receptors:
- removal of vegetation close to built and outdoor receptor locations (e.g. residential properties at the settlements of Dowally, Guay and Kindallachan, scattered properties and NMU routes along the A9 corridor);
  - vehicles moving machinery and materials to and from the site;
  - machinery, potentially including heavy excavators and earth-moving plant;
  - exposed bare earth over the extent of the proposed works;
  - structures, earthworks, road surfacing and ancillary works during construction;
  - temporary site-compound areas including site accommodation and parking;
  - construction of Compensatory Flood Storage Areas, SuDS features, swales and the Ecological/Compensatory Flood Storage Pond;



- temporary soil-storage heaps and stockpiles of construction materials;
- lighting associated with night-time working and site accommodation;
- temporary works associated with bridge construction operations; and
- traffic management measures.

- 14.4.3 Potential impacts on visual amenity during construction are likely to result from the construction of the Guay South Overbridge and associated large-scale earthworks. The removal of mature woodland and substantial new earthworks (including revisions to existing wooded cuttings) would open up views of the construction works along much of the proposed scheme.
- 14.4.4 A number of other structures, such as underbridges, culverts and retaining walls, would also be constructed in phases, taking between less than a month and up to approximately 24 months to be completed, depending on the structure, with the average time per structure estimated between approximately six and 12 months. The total time period for construction of the proposed scheme is estimated to be approximately 37 months.
- 14.4.5 Drainage (SuDS) features (in the form of retention ponds, detention basins, swales and geocellular storage systems) would also be required to provide a level of treatment for any surface water runoff during the construction of the proposed scheme. Compensatory Flood Storage Areas would also be excavated during the construction period. It is anticipated that these temporary construction features would be in similar locations to those associated with the operation of the proposed scheme, as shown on Figure 13.5.
- 14.4.6 During the construction period an Ecological/Compensatory Flood Storage Pond would also be built in advance of the works, to compensate for the loss of nearby northern damselfly habitat and floodplain as a result of the proposed scheme.
- 14.4.7 Visual impacts on built and outdoor receptors resulting from the construction activities are detailed in Appendix A14.1 and Appendix A14.2 respectively. All impacts during construction would be temporary and adverse. The significant visual impacts (Moderate or greater) resulting from the construction activities are summarised in Table 14.6. Mitigation measures including programming of works to minimise disruption, careful selection of plant and machinery, limiting night-time working and encouraging appropriate siting of plant and material storage areas to minimise their visual impact were taken into account in the assessment.

### **Operation**

- 14.4.8 Potential impacts on visual amenity during operation are described below for the proposed scheme. All impacts are considered adverse unless otherwise stated. The majority of impacts would be caused as a result of one or more of the following:
- Increased visibility of traffic due to changes in horizontal and/or vertical road alignment.
  - Loss of screening vegetation/property boundary features for residential properties at Dowally and Guay, and a number of other scattered properties along the A9 corridor, opening up views to traffic (including headlights at night) and the proposed scheme.
  - Changed appearance of the landform along the road corridor as a result of large-scale earthworks on the hillsides, the potential requirement for reinforced slopes and/or retaining structures, and the introduction of Compensatory Flood Storage Areas within the rural landscape.
  - Increased extents of visible road infrastructure including the widened mainline, realigned side roads and local access and NMU track diversions, including the proposed Dowally to Kindallachan Side Road and the proposed Dowally Farm Access Road.
  - Introduction of the Guay South Overbridge.
  - Introduction of SuDS features along the route, as well as an Ecological/Compensatory Flood Storage Pond (which would be constructed in advance, as noted above).



- Introduction of Compensatory Flood Storage Areas (located in fields adjacent to southbound carriageway between Guay and the proposed Kindallachan Direct Access, and between Kindallachan and the proposed Kindallachan Direct Access).
- Introduction of mammal fencing along the route.
- Introduction of roadside signage including Advanced Direction Signs.
- Introduction of noise barriers for certain properties.
- Introduction of road lighting at the A9 Southern Tie-in Interim Roundabout.
- Alteration of vegetation patterns as a result of tree loss and stripping of groundcover vegetation and topsoil, followed by reinstatement and new planting.

14.4.9 Visual impacts on built receptors are detailed in Appendix A14.1 (Built Receptor Assessment) and outdoor receptors in Appendix A14.2 (Outdoor Receptor Assessment). The significant visual impacts (Moderate or greater) are summarised in this chapter in Table 14.7. Mitigation measures incorporated within the design of the proposed scheme, including planting and grading of cutting and embankment slopes to shallower gradients to improve integration with the surrounding landform, are taken into account in the assessment.

## **14.5 Mitigation**

### **Embedded Mitigation**

14.5.1 The alignment of the proposed scheme has been developed through an iterative design process (initiated as part of the DMRB Stage 2 assessment), involving both engineering and environmental specialists. The process has comprised seven design iterations, each of which has been informed and reviewed by landscape specialists in order to reduce potential landscape and visual impacts and integrate the road with the surrounding landscape. These inputs have influenced the following embedded mitigation measures:

- the route alignment;
- the form and extents of earthworks along the length of the route, including those associated with Dunkeld to Rotmell (C502) Road Junction and side roads;
- the form/design of the Guay South Overbridge; and
- the location and form of SuDS features.

14.5.2 These measures have been adopted in order to reduce potential impacts on sensitive visual receptors such as residential properties and scenic recreational areas and routes.

14.5.3 Further details of embedded mitigation are provided in Chapter 4 (Iterative Design Development). Further details of the alternative options considered at DMRB Stage 2 are provided in Chapter 3 (Alternatives Considered).

### **Standard and Project-specific Mitigation**

14.5.4 As explained above, much of the mitigation of visual impacts is embedded in the design of the proposed scheme. However, landscape mitigation proposals were also developed to further reduce visual impacts. These include: grading out of embankment and cutting slopes to blend with existing landforms; use of retaining structures or steepening new slopes where appropriate to reduce loss of mature woodland; sensitive contouring and planting of SuDS detention basins, retention ponds and swales; potential for returning Compensatory Flood Storage Areas to agriculture; and new woodland/scrub planting to screen the proposed scheme and help integrate it with the surrounding landscape. The landscape design also considered opportunities to maintain or enhance open views. The effectiveness of the new planting is expected to increase over time as vegetation matures.

14.5.5 Details of the visual mitigation measures for both construction and operational phases are as per the landscape mitigation set out in Section 13.5 of Chapter 13 (Landscape) and illustrated on Figure 13.5,

and are not replicated here. Specialist aesthetic advice informed the design of elements of the proposed scheme, such as bridges, retaining walls, SuDS features and planting, providing details of how specific mitigation measures, including those to reduce visual impacts, are to be implemented.

- 14.5.6 Details of the mitigation measures that will help to reduce visual impacts at specific receptor locations are provided in Section 14.6 below, and in Appendices A14.1 and A14.2. The effects of proposed planting in mitigating impacts over time are also described in Section 14.6 below.

#### Lighting

- 14.5.7 The introduction of artificial lighting from road lighting and other fixtures may create or contribute to light pollution in the form of sky glow, glare and/or light trespass/spill. It is therefore beneficial to minimise these potential adverse effects on landscape character and protect views of dark skies in rural areas.
- 14.5.8 Where lighting is essential, it has been incorporated into the design of the proposed scheme such that the effect on the night sky is minimised. The proposed scheme will avoid excessive, unnecessary and obtrusive lighting through the appropriate selection, location and arrangement of lighting elements to achieve the necessary safety standards of useful light, while minimising intrusiveness in the form of spillage, glare and reflection.
- 14.5.9 Special attention will be given to minimising the landscape and visual impacts of the lighting columns and fixings and to prevent unnecessary glare or light spill. In order to limit light pollution from the proposed street lights, Light Emitting Diodes (LEDs) or similar, which can be dynamically controlled according to traffic flows, will be utilised on the proposed scheme. This form of lighting, known as Full Cut Off lighting, directs light of appropriate strength where it is needed and controls the unwanted dispersion of obtrusive artificial light by eliminating the emission of light upwards. This choice of luminaire also enables maximum spacing between lighting columns and ensures that the minimum amount of lighting is used, without compromising safety (**Mitigation Item P03-LV22**).
- 14.5.10 Road lighting is proposed at the A9 Southern Tie-in Interim Roundabout located between ch600 and ch700 at the southern end of the proposed scheme.

## **14.6 Residual Impacts**

- 14.6.1 Significant residual impacts that would remain once the described mitigation measures have been implemented are described below.
- 14.6.2 For details of numerical references for built receptors, see Figure 14.3 and Appendix A14.1 (Built Receptor Assessment). For outdoor receptors, see Figure 14.4 and Appendix 14.2 (Outdoor Receptor Assessment), and for additional details of all NMUs including local paths, see Table 9.11 in Chapter 9 (People and Communities – All Travellers) and Figures 9.1 and 9.2.

### **Construction**

- 14.6.3 The DMRB Stage 3 visual assessment has identified a number of likely visual impacts on people at built and outdoor receptor locations associated with the construction of the proposed scheme, as shown in Appendices A14.1 and A14.2 respectively. All of these impacts would be temporary and adverse. Significant impacts that would be experienced by receptors at these locations are summarised below.

#### Built Receptors

- 14.6.4 **Substantial** impacts are predicted during construction at Ledpetty Lodge (receptor 7) and at Warren Lodge (receptor 9), as a result of earthwork construction activities and loss of woodland taking place adjacent to both of these properties.
- 14.6.5 Receptors 23 (1-4 Dowally Cottages) and 27 (Dowally Farm and Farmhouse) are predicted to experience **Substantial** impacts as a result of mainline widening, earthworks, Dowally to Kindallachan Side Road, Dowally Farm Access Road, noise barrier and Basin C construction activities taking place

in close proximity to these properties, as well as the construction of a retaining wall, Swale D2 and Guay South Overbridge adjacent to and near Dowally Farm and Farmhouse.

- 14.6.6 Impacts are also predicted be **Substantial** at Guay Farmhouse (receptor 37), Guay Lodge (receptor 38), The Knoll, Guay (receptor 39) and Gorchan, Poldornie, Ristol, Carnskerie House (receptor 40). These would occur as a result of the extent of land acquired for the proposed scheme (including buildings at Guay Farmhouse to accommodate the mainline and Dowally to Kindallachan Side Road), and earthwork construction associated with the mainline, side roads, Compensatory Flood Storage Areas, Pond E, Swales D1 and E and a 1.5m high noise barrier, which would take place on and within close proximity to these properties.
- 14.6.7 **Substantial** impacts are predicted during construction at 1-3 Guay Cottages (receptor 45), due to the immediate proximity to the Dowally to Kindallachan Side Road, Pond E, Swale E and Compensatory Flood Storage Area 1 construction work.
- 14.6.8 In Kindallachan, Bracken, Atholl, Cappanach, Ivy and Wayside Cottages (receptor 50) are predicted to experience **Substantial** impacts as a result of earthworks, mainline widening and the Kindallachan Underbridge construction activities taking place in close proximity to these properties.
- 14.6.9 Haugh of Kilmorich (receptor 62), Haugh Cottage South and Haugh Cottage North (receptor 67), and Westhaugh of Tulliemet (receptor 69) are predicted to experience **Substantial** impacts during construction of the proposed scheme. These would result from open views to earthworks and hard-faced soil nailed cutting slope (up to 11.5m high) construction activities taking place in close proximity to these receptor locations including the construction of a retaining wall adjacent to Haugh of Kilmorich, as well as Compensatory Flood Storage Area 6 visible from Haugh of Kilmorich and Haugh Cottage South and Haugh Cottage North and Compensatory Flood Storage Area 7 and Pond H north of Westhaugh of Tulliemet.
- 14.6.10 In addition to the above, four built receptors (receptor numbers 8, 24, 51 and 52) are predicted to experience **Moderate/Substantial** impacts and 10 built receptors would experience **Moderate** impacts during construction of the proposed scheme.
- 14.6.11 Further information is provided in Table 1 of Appendix A14.1.

#### Outdoor Receptors

- 14.6.12 **Substantial** impacts are predicted during construction by users of the U163 Guay to Tulliemet Road (at Guay) (receptor O18A), RCR 83 (north of Rotmell) (receptor O2B), walkers on some stretches of three PKC Core Paths (DUNK/140/1, 141/1 and 2 and 141/3, 4 and 5 (receptors O21, O16 and O14), and from local paths 53 (receptor O4) and 58 (receptor O15) – mainly as a result of visibility to extensive earthworks associated with the mainline widening and views to the Guay South Overbridge.
- 14.6.13 Five outdoor receptors – travellers on the Highland Main Line railway (north of Tay rail crossing) (receptor O8B) and walkers on local paths 60 (receptor O19), 61 (receptor O20), 66 (receptor O24) and MASG/127/1, 2 and 3 (receptor O25) – are predicted to experience **Moderate/Substantial** impacts. Six outdoor receptors – RCR 83 (South of Rotmell) (receptor O2A), Highland Main Line railway (south of Tay rail crossing) (receptor O8A), Local Path 55 (receptor O10), PKC Core Path DUNK/100 (receptor O1), PKC Core Path DUNK/109/1/2 and Right of Way TP64 (receptor O13) and Creag an Uamhaidh cairn, Tay Forest Park (receptor O7) – are predicted to experience **Moderate** impacts during construction of the proposed scheme.
- 14.6.14 Further information is provided in Table 1 of Appendix A14.2.

#### **Operation**

- 14.6.15 Visualisations from selected viewpoint locations are shown on Figures 14.6 to 14.16 and the locations of the viewpoints are shown on Figure 14.5. The visualisations are intended to be illustrative of the nature of the changes to views resulting from the proposed scheme; they have not been used as a tool in the assessment of impact significance, nor are they intended to focus only on significant

impacts. The viewpoints selected are all publicly accessible outdoor locations. Views from private properties were not included. Visualisations were prepared for the following locations:

- Viewpoint 1 (Figure 14.6): View from Inchfield, Inchmagrannachan looking east towards Woodlands (Predicted Wireline View);
- Viewpoint 2 (Figure 14.7): View from Creag an Uamhaidh cairn, Tay Forest Park looking north-east across Strath Tay (Predicted Wireline View);
- Viewpoint 3 (Figure 14.8): View from General Wade's Military Road, north of Warren Lodge looking west across the River Tay towards the Tay Forest Park (Predicted Wireline View);
- Viewpoint 4 (Figure 14.9): View from the B898, north of Woodinch looking north-east towards Rotmell Farm (Predicted Photomontage View (Year 15));
- Viewpoint 5 (Figure 14.10): View from Dowally Cottages, Dowally looking west towards Dowally Farm and Farmhouse (Predicted Photomontage View (Year 15));
- Viewpoint 6 (Figure 14.11): View from Local Path 58, west of Dowally Farm looking north towards the location of the proposed Guay South Overbridge (Predicted Photomontage View (Year 15));
- Viewpoint 7 (Figure 14.12): View from the B898 at Glenalbert looking south-east towards the location of the proposed Guay South Overbridge (Predicted Wireline View);
- Viewpoint 8 (Figure 14.13): View from the B898 at Milton of Kincaigie looking north-east towards Guay (Predicted Wireline View);
- Viewpoint 9 (Figure 14.14): View from the U163, Guay to Tulliemet Road, south of Guay Lodge looking west towards Guay Farmhouse (Predicted Photomontage View (Year 15));
- Viewpoint 10 (Figure 14.15): View from the southern edge of Kindallachan near Bracken Cottage looking south-west towards the Tay Forest Park (Predicted Photomontage View (Year 15)); and
- Viewpoint 11 (Figure 14.16): View from the B898 at Balmacneil looking east towards Haugh of Kilmorich and properties in the north of Kindallachan (Predicted Photomontage View (Year 15)).

### Built Receptors

#### *General*

- 14.6.16 The following section provides a summary of the detailed visual impact assessment presented in Appendix A14.1 for built receptors, and highlights those locations that are likely to experience significant (**Moderate** and above) impacts post-mitigation.

#### *Inchmagrannachan and Inchfield (approx. ch850) (Figure 14.3a)*

- 14.6.17 **Moderate** impacts would be experienced by residents at receptor 5 (Cottages No. 3 and 4 at Inchmagrannachan, and 1-4 Silver Knowe, Inchmagrannachan) during the winter of the year of opening, as a result of proposed soil nailing and cutting slopes between ch600 and ch1050 and the contiguous bored pile wall between ch1500 and ch1900 and the resultant loss of existing trees and scrub including those along the River Tay, which would enable greater visibility to vehicles, and due to lighting associated with the proposed interim roundabout at ch620. The significance of these impacts would reduce to Slight in the summer 15 years after opening following the establishment of mitigation planting, including mixed and riparian woodland and individual trees along the road corridor and scrub and species-rich grassland on cuttings (**Mitigation Items P03-LV8 and P03-LV17**).

#### *Woodlands (approx. ch900) (Figure 14.3a)*

- 14.6.18 **Moderate** impacts would be experienced by residents at Woodlands (receptor 6) during the winter of the year of opening, as a result of proposed soil nailing and cutting slopes between ch600 and ch1600, enabling greater visibility to vehicles and views to signage on approach to the roundabout as well as views to Pond A2 and the resultant loss of existing trees and scrub. The significance of these impacts would reduce to Slight in the summer 15 years after opening, following the establishment of mitigation planting, including mixed woodland, individual trees, scrub and species-rich grassland on



cuttings and that surrounding Pond A2 (**Mitigation Items P03-LV8, P03-LV9, P03-LV17 and P03-LV20**).

*Ledpetty Lodge (approx. ch1500) (Figure 14.3a)*

- 14.6.19 **Moderate** impacts would be experienced from this receptor location (receptor 7) as a result of proposed large cuttings and associated woodland loss between ch1300 and ch1600, which would enable visibility to the widened A9 and traffic on it to the west and south-west, as well as views of mammal fencing and a proposed 1.6m high and 51m long noise barrier (a combination of earth bund, drystone wall and timber fence). The significance of these impacts would reduce to Slight/Moderate in the summer 15 years after opening, following the establishment of mitigation planting in the form of mixed woodland, scrub and scattered trees (**Mitigation Item P03-LV17**).

*Dalmarnock Farm (approx. ch1600 to ch1700) (Figure 14.3a)*

- 14.6.20 **Moderate/Substantial** impacts would be experienced from Dalmarnock Farm (receptor 8) during the winter of the year of opening, as a result of visibility of the proposed southbound widening and associated earthworks and the loss of existing woodland and trees between ch1200 and ch2100 and ch1500 and ch1900, which would enable greater visibility to vehicles on the road. However, these impacts are likely to reduce to Slight/Moderate in the summer 15 years after opening following the establishment of mitigation planting, which would include woodland, individual trees, scrub and grass to soften the visual impact of earthworks (**Mitigation Items P03-LV16 and P03-LV17**).

*Warren Lodge (approx. ch1700) (Figure 14.3a)*

- 14.6.21 Residents at Warren Lodge (receptor 9) would experience **Substantial** impacts during the winter of the year of opening as a result of the proposed large cuttings at and to the south of the property and associated woodland loss, enabling greater visibility of the widened A9 between ch1500 and ch1800 and traffic along this section of the road, as well as views of proposed mammal fencing. These impacts would be likely to reduce to **Moderate** in the summer 15 years after opening following the establishment of mitigation planting, particularly mixed woodland, which would screen and soften views to the road and mammal fencing (**Mitigation Item P03-LV17**).

*Dowally (approx. ch3900 to ch4250) (Figure 14.3b)*

- 14.6.22 Receptors at Dowally Farm and Farmhouse (receptor 27) are likely to experience **Substantial** impacts during the winter of the year of opening, due to the close proximity of this property to the realigned mainline (northbound), the Guay South Overbridge and associated earthworks, loss of existing roadside trees, and the introduction of a retaining wall, signage associated with the overbridge and combined 1.5m high mammal fencing and noise barrier to the immediate east. The loss of intervening vegetation would enable greater visibility to the widened A9 and traffic on it, as well as views to the proposed Guay South Overbridge, Dowally Farm Access Road, Dowally to Kindallachan Side Road and large earthworks to the north. Basin C would also be visible to the south and Swale D2 and Compensatory Flood Storage Area 3 visible to the north. The impacts would reduce to **Moderate/Substantial** in the summer after 15 years, following the establishment of mitigation planting including mixed woodland, scattered trees and hedgerow adjacent to the proposed scheme and mixed and riparian woodland surrounding the basin (**Mitigation Items P03-LV9, P03-LV16 and P03-LV17**).

- 14.6.23 **Moderate** impacts would be experienced by receptors at the Self Catering Units - Dowally Farm (receptor 26) during the winter of the year of opening given the close proximity of the units to the realigned mainline (northbound), the associated loss of existing roadside trees, and the introduction of a retaining wall, signage on approach to the overbridge, mammal fencing, Basin C to the immediate south-east and a stone wall noise barrier to the immediate east. The impacts would reduce to Slight in the summer after 15 years, following the establishment of individual trees and woodland adjacent to the proposed scheme, and mixed and riparian woodland adjacent to the basin (**Mitigation Items P03-LV9, P03-LV16 and P03-LV17**).

- 14.6.24 Residents at 1-4 Dowally Cottages (receptor 23) would experience **Substantial** impacts in the winter of the year of opening, given the close proximity of these properties to the southbound widening of the mainline, the Dowally to Kindallachan Side Road and associated earthworks including the partial

removal of an existing bund to the south-west, enabling greater visibility to vehicles on the road. The mainline and side road proposals would also result in the loss of existing trees adjacent to Dowally Church and along the northbound carriageway, resulting in greater visibility to the widened mainline as well as signage and Basin C to the northbound side. Two proposed noise barriers including a combined stone wall noise barrier and mammal fencing would be visible along the southbound side of the widened mainline to the north-west of these properties. Impacts would reduce to **Moderate/Substantial** in the summer after 15 years, following the establishment of mixed and riparian woodland adjacent to the basin and scattered trees on either side of the mainline (**Mitigation Items P03-LV9 and P03-LV17**) and the stone wall noise barrier (**Mitigation Item P03-LV11**), although would remain significant considering the limited separation distance between the receptor and the proposed scheme (see Figure 14.10).

14.6.25 **Moderate/Substantial** impacts would be experienced by receptors at Dowally Church (receptor 24) during the winter of the year of opening due to the proposed southbound widening of the mainline, the adjacent proposed Dowally to Kindallachan Side Road and associated earthworks, which would increase visibility to vehicles, as well as a 1.5m high combined stone wall noise barrier and mammal fencing and signage on approach to the overbridge. These impacts are likely to reduce to **Moderate** in the summer 15 years after opening, following the establishment of scattered roadside trees and hedgerow as mitigation planting and with the stone wall noise barrier screening views to the road and traffic on it (**Mitigation Items P03-LV11 and P03-LV17**).

14.6.26 The Dowally Craft Centre (receptor 28) would experience **Moderate** impacts during the winter of the year of opening due to the southbound widening of the mainline, the adjacent proposed Dowally to Kindallachan Side Road, increasing visibility to vehicles on these roads as well as associated earthworks, a stone wall noise barrier, signage and mammal fencing and views to the proposed Dowally Church car park. These impacts are likely to reduce to Slight/Moderate in the summer 15 years after opening, following the establishment of woodland and roadside trees as mitigation planting and hedgerow at the proposed car park and bus turning area (**Mitigation Item P03-LV17**).

*Guay (approx. ch5200 to ch5400) (Figure 14.3b)*

14.6.27 At Guay, **Substantial** impacts would be experienced from Guay Farmhouse (receptor 37, refer to Photograph 14.5) during the winter of the year of opening, as the southbound mainline would be dualled to the east and the proposed scheme and traffic along with associated earthworks, would have a greater influence on views. These impacts are also a result of the proposed demolition of Guay Farm Cattle Shed and partial demolition of the farmhouse wing, land take and the loss of existing roadside vegetation, as well as views to mammal fencing, Kindallachan Direct Access signage, the proposed Dowally to Kindallachan Side Road and associated earthworks, Compensatory Flood Storage Areas 1 2 and 3, Pond E, Swale D1, a noise barrier and retaining wall. Impacts are likely to remain **Substantial** at this location in the summer 15 years after opening, as mitigation planting to screen views is limited to scattered roadside trees, a group of trees to the north of the farmhouse and hedgerow with mixed woodland to the immediate south-east (**Mitigation Item P03-LV17**). The Compensatory Flood Storage Areas would be returned to agricultural use (**Mitigation Item P03-LV10**).

14.6.28 **Moderate** impacts during the winter of the year of opening would be experienced from Guay Lodge (receptor 38) and **Moderate/Substantial** impacts from The Knoll (receptor 39) due to greater visibility of the road and vehicles on it given the demolition of buildings at Guay Farmhouse and loss of intervening vegetation and earthworks associated with the mainline and the proposed Dowally to Kindallachan Side Road, enabling views to northern edge of the Guay South Overbridge junction. Compensatory Flood Storage Areas 1 2 and 3, Pond E, Swales D1 and E as well as noise barriers would also be visible from The Knoll. These impacts would reduce to **Moderate** at The Knoll and Slight/Moderate at Guay Lodge in the summer after 15 years following the establishment of mitigation planting, particularly replacement mixed woodland along the proposed southbound roadside cutting between ch5000 and ch5200 and along the proposed side road (**Mitigation Item P03-LV17**) (see Figure 14.15) and the return of Compensatory Flood Storage Areas to agricultural use (**Mitigation Item P03-LV10**).

14.6.29 The cluster of houses (Gorchan, Poldornie, Ristol and Carnskerie House) in Guay (receptor 40) and Tayview and Charris in Guay (receptor 43) would experience **Substantial** and **Moderate** impacts

respectively during the winter of the year of opening, as the residents of these properties would gain greater visibility of the widened road and vehicles on it due to the loss of existing mature roadside conifers, and would also gain a view of the proposed Dowally to Kindallachan Side Road, associated earthworks and mammal fencing. The Guay South Overbridge and junction loop roads, a proposed 2.4m high and 24m long noise barrier at The Knoll, and a 1.5m high, 96m long noise barrier adjacent to Guay Farmhouse, Compensatory Flood Storage Area 3 and Swale D1 would also be visible to the west from Gorchan, Poldornie, Ristol and Carnskerie House.

- 14.6.30 Impacts would be reduced in the summer after 15 years at Gorchan, Poldornie, Ristol and Carnskerie House to **Moderate** with the establishment of mixed woodland and individual roadside tree mitigation planting (**Mitigation Item P03-LV17**) and the return of the Compensatory Flood Storage Area to agricultural use (**Mitigation Item P03-LV10**), and to Slight/Moderate at Tayview and Charris in Guay with the establishment of mitigation planting (**Mitigation Item P03-LV17**).
- 14.6.31 During the winter of the year of opening, residents at 1-3 Guay Cottages, Guay (receptor 45) would experience **Moderate/Substantial** impacts due to uninterrupted views – given the limited separation distance between these elements and the cottages and absence of intervening vegetation – towards the widened southbound mainline and vehicles on it, the Dowally to Kindallachan Side Road, earthworks, Pond E, Compensatory Flood Storage Areas 1 and 2, Kindallachan Direct Access signage, the retaining wall at Guay Farmhouse and mammal fencing. These impacts would be reduced to Slight/Moderate in the summer after 15 years, following the establishment of mixed woodland to the west and scattered individual roadside trees along the A9 to soften views of the proposed scheme (**Mitigation Item P03-LV17**), and the return of both Compensatory Flood Storage Areas to agricultural use (**Mitigation Item P03-LV10**).

*Kindallachan (approx. ch5900 to ch6200) (Figure 14.3b)*

- 14.6.32 Residents at Bracken Cottage, Atholl Cottage, Cappanach Cottage, Ivy Cottage and Wayside Cottage (receptor 50) would gain greater visibility to the widened A9 and vehicles on it, as the southbound mainline would be within closer proximity of the cottages. There would also be views to embankments associated with the mainline, Dowally to Kindallachan Side Road, Kindallachan Underbridge, Compensatory Flood Storage Areas to the south, signage at ch6000 and mammal fencing, resulting in **Substantial** impacts during the winter of the year of opening. **Moderate/Substantial** impacts would be experienced from 1 and 2 Croft Croy (receptor 52) as a result of the southbound mainline and associated embankments extending into the curtilage of the property, and the loss of woodland and garden trees resulting in greater visibility to the widened mainline and vehicles, Kindallachan Underbridge and proposed mammal fencing and signage. Impacts for both receptors are expected to reduce to **Moderate** in the summer 15 years after opening, following the establishment of individual trees between the mainline and these properties (**Mitigation Item P03-LV17**), although will remain significant given the limited separation distance to the road (see Figure 14.15).
- 14.6.33 Residents at East End Cottage, Rose Cottage, Beech Cottage and Oshnie (receptor 51), Roslyn and Morven (receptor 55) and Rockview House (receptor 57) would experience **Moderate** impacts during the winter of the year of opening, due to the proposed widening of the mainline along the southbound side of the existing A9 and associated earthworks, which would enable greater visibility of vehicles on the road, the Kindallachan Underbridge and proposed mammal fencing. Impacts from both receptors are anticipated to reduce to Slight in the summer 15 years after opening, following the establishment of individual trees to soften views towards the widened mainline (**Mitigation Item P03-LV17**).

*Croftnascallaig Farmhouse (approx. ch6400) (Figure 14.3c)*

- 14.6.34 **Moderate** impacts would be experienced by receptors at Croftnascallaig Farmhouse (receptor 61) during the winter of the year of opening, due to filtered views of the widened mainline, with a slight increase to vehicles on the road, proposed mammal fencing and associated earthworks. Impacts would reduce to Slight in the summer 15 years after opening, following the establishment of mixed woodland and individual tree planting to soften views to the widened mainline and mitigate the loss of existing woodland and roadside trees associated with proposed earthworks (**Mitigation Item P03-LV17**).



*Balmacneil and Ferry Cottage (approx. ch6400 to ch7700) (Figure 14.3c)*

- 14.6.35 **Moderate** impacts would be experienced from Balmacneil (receptor 63) and Ferry Cottage (receptor 65) during the winter of the year of opening, as a result of increased visibility of the widened A9 and vehicles on it. In addition, visual impacts would arise from proposed large-scale earthworks and associated woodland loss, side roads, Flood Compensatory Areas 6 and 7, mammal fencing and a hard-faced soil nailed cutting slope (up to 11.5m high) between ch7300 and ch7700. Impacts are expected to reduce to Slight for both receptors in the summer 15 years after opening, with careful consideration to the aesthetics of soil nailed slopes and following the establishment of mixed woodland, individual trees and species-rich grassland as mitigation planting (**Mitigation Items P03-LV8, P03-LV13 and P03-LV17**) and the return of the Compensatory Flood Storage Areas to agricultural use (**Mitigation Item P03-LV10**).

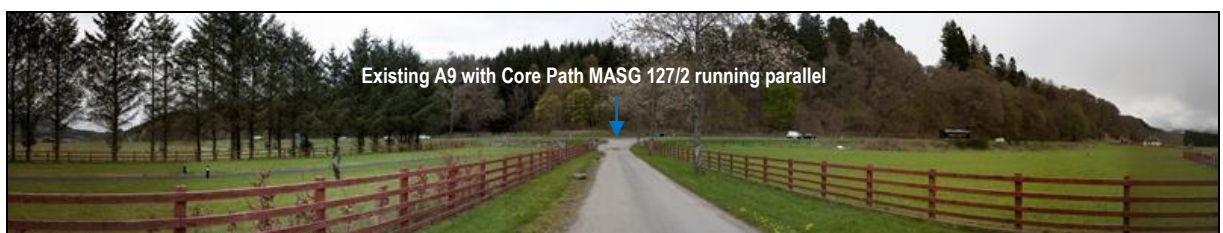
*Haugh of Kilmorich (approx. ch6950) (Figure 14.3c)*

- 14.6.36 Residents at Haugh of Kilmorich (receptor 62) would experience **Substantial** impacts during the winter of the year of opening. These impacts would occur as a result of increased visibility of the widened A9, as well as views of the proposed Haugh of Kilmorich Access Track, access track signage, realignment of General Wade's Military Road (between ch6800 to ch6950), earthworks and the resultant loss of woodland, roadside and garden trees and agricultural land. In addition, visual impacts would arise from the hard-faced soil nailed cutting slope between ch7300 and ch7700, Compensatory Flood Storage Area 6 and mammal fencing and a retaining wall along the eastern property boundary. Impacts are expected to reduce to **Moderate** in the summer 15 years after opening, with careful consideration to the aesthetics of soil nailed slopes and following the establishment of mixed woodland and roadside tree and hedgerow planting (**Mitigation Items P03-LV8 and P03-LV17**), which would filter views to the A9, side and access roads as well as the return of the Compensatory Flood Storage Area to agricultural use (**Mitigation Item P03-LV10**).

*Haugh Cottage South and Haugh Cottage North (approx. ch7500) and Westhaugh of Tulliemet (approx. ch7600 to ch7700) (Figure 14.3c)*

- 14.6.37 Residents at Haugh Cottage South and Haugh Cottage North (receptor 67) and Westhaugh of Tulliemet (receptor 69, refer to Photograph 14.14) would experience **Substantial** impacts in the winter of the year of opening. These impacts would result from increased visibility of the widened road, as well as existing woodland loss and extensive cuttings associated with the proposed southbound mainline; introduction of the Westhaugh of Tulliemet Farm Access Track and Westhaugh of Tulliemet Access Road and associated embankments, access road signage, mammal fencing and the proposed hard-faced soil nailed cutting slope along the southbound side between ch7300 and ch7700. Compensatory Flood Storage Area 6 would be visible from Haugh Cottage South and Haugh Cottage North and Pond H and Compensatory Flood Storage Area 7 from Westhaugh of Tulliemet in fields to the north-west of this property. Scattered individual trees as mitigation planting are expected to soften views to the mainline and side and access roads and riparian woodland would filter views to the pond (**Mitigation Item P03-LV17**) with careful consideration to the aesthetics of soil nailed slopes (**Mitigation Item P03-LV8**) and the Compensatory Flood Storage Areas would be returned to agricultural use (**Mitigation Item P03-LV10**). However, due to the limited separation distance between the widened mainline and soil nailed cutting to these receptors, impacts are expected to remain **Substantial** in the summer 15 years after opening.

**Photograph 14.14: Existing view from Westhaugh of Tulliemet to the east, to the A9 and mixed woodland beyond**





Outdoor Receptors

*General*

- 14.6.38 The following descriptions summarise the results of the visual impact assessment and highlight the predicted significant (**Moderate** and above) residual impacts on outdoor receptors. For detailed information on the impacts, mitigation and residual significance for all assessed receptors refer to Appendix A14.2 (Outdoor Receptors). In general, the greatest impacts would be experienced by users of routes located immediately adjacent to the proposed scheme.

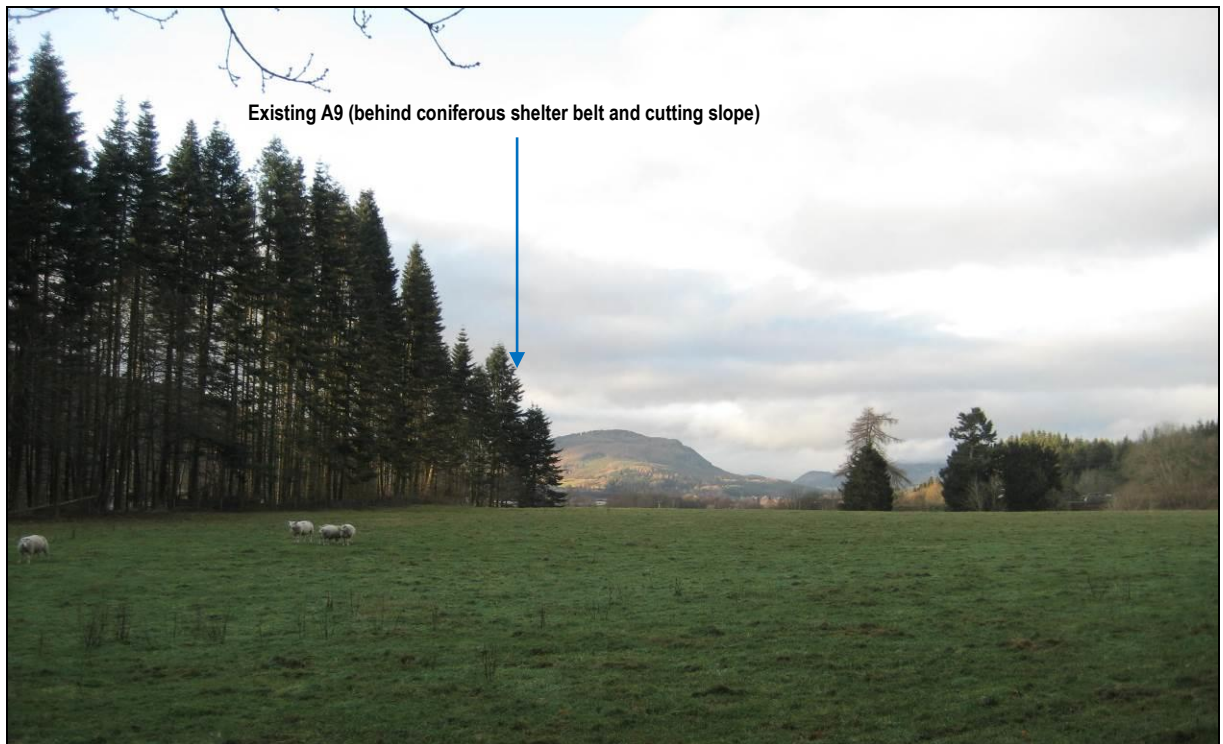
*Highland Main Line railway (ch400 to ch8300) (Figure 14.4a-b)*

- 14.6.39 Travellers on the Highland Main Line railway south of the Tay rail crossing (receptor O8A) would experience **Moderate** impacts during the winter of the year of opening, while travellers on the railway north of the Tay rail crossing (receptor O8B) would experience **Moderate/Substantial** impacts. These impacts would result from the proposed road widening and the introduction of the Guay South Overbridge and side roads, associated earthworks, retaining walls, ponds/basins, mammal fencing and roadside signage, as well as the loss of vegetation along the existing A9 road corridor, enabling greater visibility to traffic on the road.
- 14.6.40 From the section south of the Tay rail crossing (receptor O8A), the greatest visual impacts are expected to result from proposed earthworks and the associated loss of existing roadside woodland, low-lying scrub and agricultural land along the southbound side of the widened mainline and at Dowally – Guay South Overbridge. The impacts would not remain significant, reducing to Slight in the summer 15 years after opening following the establishment of individual trees, mixed woodland, scrub and species-rich grassland as mitigation planting, helping to integrate cuttings into the wider landscape (**Mitigation Items P03-LV16 and P03-LV17**). The proposed contiguous bored pile wall on the outside bend of the River Tay (ch1600 – ch1900) would potentially be visible in the summer 15 years after opening due to erosion of the riverbank and the resultant loss of existing riparian woodland.
- 14.6.41 Travellers on the Highland Main Line railway, north of the Tay rail crossing (receptor O8B), currently experience generally open elevated views to the east, as the rail line is on embankment for much of the route, although some scattered trees and shrubs on the rail embankment provide limited screening. Visual impacts are expected to result from the proposed Guay South Overbridge; Kindallachan Underbridge (ch6100); the Kindallachan North Side Road; the introduction of proposed side and local access roads, a hard-faced soil nailed cutting between ch7300 and ch7700, ponds/basins, signage, mammal fencing, and Compensatory Flood Storage Areas; and all associated earthworks and the resultant loss of existing roadside woodland and agricultural land. These impacts would remain significant, reducing to **Moderate** in the summer after 15 years with careful consideration to the aesthetics of soil nailed slopes and following the establishment of mitigation planting and the return of Compensatory Flood Storage Areas to agricultural use (**Mitigation Items P03-LV8, P03-LV16, P03-LV17 and P03-LV10**).

*U163 Guay to Tulliemet Road (at Guay) (ch4900 to ch5200) (Figure 14.4b)*

- 14.6.42 Travellers on the U163 Guay to Tulliemet Road in the vicinity of Guay (receptor O18A) would experience **Substantial** impacts during the winter of the year of opening, due to the mainline widening, realignment of the U163 Guay to Tulliemet Road, the introduction of the proposed Guay South Overbridge and side roads, Guay side road (forming part of the Dowally to Kindallachan Side Road) and the introduction of a proposed Network Rail Access Track and all associated earthworks. These proposals would result in the loss of existing roadside vegetation, including a mature coniferous shelterbelt that currently runs along the eastern boundary of the existing A9 between ch4950 and ch5200 (refer to Photograph 14.15), opening up views to the traffic on the widened mainline. Swales D1 and D2 and Compensatory Flood Storage Area 3 and 4, as well as a retaining wall, signage and noise barriers at and near The Knoll and Guay Farmhouse would also be visible from this road.
- 14.6.43 These impacts would remain significant, reducing to **Moderate/Substantial** in the summer after 15 years, following the establishment of mixed woodland mitigation planting (**Mitigation Items P03-LV16 and P03-LV17**) (see Figure 14.14).

Photograph 14.15: Existing view north-west from the U163 Guay to Tulliemet Road, taken south of Guay Lodge



*RCR 83 (ch400 to ch8300) (Figure 14.4a-b)*

- 14.6.44 **Moderate** impacts would be experienced by cyclists on RCR 83 (south of Rotmell) (receptor O2A) during the winter of the year of opening, due to the realignment of the route to accommodate changes to General Wade's Military Road, as well as views of soil nailed cutting slopes, retaining walls, signage at the Dunkeld to Rotmell (C502) Junction, mammal fencing and a 1.4m high, a 61m long noise barrier at Rotmell and Ponds A1 and A2. The impacts would reduce to Slight/Moderate by the summer year after opening, following the establishment of species-rich grassland with scattered trees on cutting slopes and mixed woodland mitigation planting (**Mitigation Items P03-LV16 and P03-LV17**).
- 14.6.45 Cyclists on RCR 83 (north of Rotmell) (receptor O2B) would experience **Substantial** impacts during the winter of the year of opening, due to the proposed mainline widening and Dunkeld to Rotmell (C502) Junction, the realignment of General Wade's Military Road, all associated earthworks, which would enable greater visibility to vehicles on the road, as well as retaining walls, a hard-faced soil nailed cutting slope (between ch7300 and ch7700) and the loss of existing roadside vegetation. Impacts on views would also arise from the introduction of proposed new access roads, ponds/basins, Compensatory Flood Storage Areas, mammal fencing, noise barriers, roadside signage, and the new Guay South Overbridge. The impacts would reduce to **Moderate** by the summer 15 years after opening, with careful consideration to the aesthetics of soil nailed slopes and following the establishment of species-rich grassland, scattered individual trees and mixed woodland as mitigation planting (**Mitigation Items P03-LV8, P03-LV13, P03-LV16 and P03-LV17**) as well as the return of the Compensatory Flood Storage Area to agricultural use (**Mitigation Item P03-LV10**).

*PKC Core Paths (ch0 to ch7950) (Figure 14.4a-b)*

- 14.6.46 **Moderate** impacts would be experienced by walkers along Core Path DUNK/100 (receptor O1) during the winter of the year of opening, due to the mainline widening and proposed roundabout and associated lighting and signage, Ponds A1 and all associated earthworks. These impacts would reduce to Slight in the summer after 15 years by minimising the landscape and visual impacts of the lighting columns and fixings and to prevent unnecessary glare or light spill and following the establishment of mixed woodland, scattered trees and species-rich grassland on earthworks and riparian woodland and individual trees surrounding the pond (**Mitigation Item P03-LV17**).

- 14.6.47 Walkers on Core Paths DUNK/109/1 and 2 (receptor O13), which runs through Dowally, would experience **Moderate** impacts during the winter of the year of opening. These impacts would occur as a result of the proposed mainline widening, the proposed Guay South Overbridge, Dowally to Kindallachan Side Road and Dowally Farm Access Road, all associated earthworks, and proposed Basin C, combined mammal fencing and noise barrier and roadside signage. The proposed scheme would slightly truncate the core paths at the western end but would not impact visually on the eastern section of the routes. These impacts would not remain significant, reducing to Slight by the summer 15 years after opening following the establishment of individual tree and hedgerow planting along the roadside, which would soften the visual impact of the new cuttings and embankments. Riparian and mixed woodland would help integrate the basin south of Dowally Farm and Farmhouse (**Mitigation Items P03-LV16 and P03-LV17**) (see Figure 14.10).
- 14.6.48 **Substantial** impacts would be experienced by walkers along Core Paths DUNK/141/3, 4 and 5 (receptor O14) during the winter of the year of opening, due to the proposed mainline widening and Dunkeld to Rotmell (C502) Junction, associated large-scale earthworks, retaining wall (ch3000 to 3550) and the resultant loss of existing roadside vegetation. The introduction of the Guay South Overbridge, Dowally to Kindallachan Side Road and Dowally Farm Access Road, together with proposed Basin C at ch4000, noise barriers (a 1m high barrier southwest of Dowally Cottages and a 1.5m high, c.160m long combined mammal fencing and stone wall noise barrier (ch4050 to ch4210), Compensatory Flood Storage Area 3, 4 and 5, Swales D1 and D2 and roadside signage would also be noticeable features in views from the path. These impacts would remain significant, marginally reducing to **Moderate/Substantial** in the summer after 15 years following the establishment of scattered individual trees, hedgerow and mixed woodland along and adjacent to the road (**Mitigation Items P03-LV16 and P03-LV17**) and the return of the Compensatory Flood Storage Areas to agricultural use (**Mitigation Item P03-LV10**).
- 14.6.49 Walkers on Core Paths DUNK/141/1 and 2 (receptor O16) would experience **Substantial** impacts during the winter of the year of opening, due to the mainline widening with associated cuttings and earthworks and the resultant loss of existing roadside vegetation. The introduction of the proposed Guay South Overbridge and side roads, Dowally to Kindallachan Side Road to the east and the proposed Network Rail Access Track to the west of the mainline, together with Compensatory Flood Storage Areas 3, 4, the retaining wall and noise barriers, mammal fencing and signage associated with the overbridge, would be noticeable features within the landscape. The impacts would remain significant, reducing to **Moderate** in the summer after 15 years following the establishment of mixed woodland mitigation planting.
- 14.6.50 Walkers along Core Path DUNK/140/1 (receptor O21), which runs between Guay and Kindallachan along the route of General Wade's Military Road (refer to Photograph 14.16), would experience **Substantial** impacts during the winter of the year of opening as a result of the mainline widening, the proposed Guay South Overbridge, Dowally to Kindallachan Side Road, Kindallachan Direct Access Road and the Guay Farmhouse Access Road and associated earthworks and loss of roadside vegetation. Visual impacts would also result from the introduction of a retaining wall and noise barriers, roadside signage, mammal fencing, Compensatory Flood Storage Areas 3, 4 and 5, Pond E and Swales D1 D2 and E. The impacts would reduce to **Moderate** in the summer after 15 years, although remaining significant, following the establishment of individual roadside trees and species-rich grassland to soften views towards the widened mainline, riparian woodland and individual trees surrounding Pond E (**Mitigation Item P03-LV16 and P03-LV17**) and the return of Compensatory Flood Storage Areas to agricultural use (**Mitigation Item P03-LV10**).
- 14.6.51 Local Path 63a runs adjacent to the A9 between Guay and Kindallachan between ch5280 and ch5930. Due to the widening of the southbound lane, this path would be re-routed to align with Core Path DUNK/140/1 (receptor O21) so the visual assessment of the local path is considered with that of the Core Path.



Photograph 14.16: Existing view southwards from Core Path DUNK/140/1 looking towards Guay Cottages



- 14.6.52 Core Paths MASG/127/1, 2 and 3 (receptor O25) follow the route of General Wade's Military Road through Kindallachan to Haugh of Kilmorich and then run alongside the existing A9 to the junction with the Ballachallan access road (refer to Photograph 14.17). Walkers along the path would experience **Moderate/Substantial** impacts during the winter of the year of opening due to the mainline widening, the introduction of the Kindallachan Underbridge, side and access roads, hard-faced soil nailed cutting slope (between ch7300 and ch7700), together with associated large-scale earthworks and the resultant loss of existing roadside vegetation. The introduction of Compensatory Flood Storage Areas, mammal fencing, Pond H and roadside signage would also be noticeable features within the landscape. Impacts would remain significant (due to the close proximity of the widened mainline and associated structures), reducing to **Moderate** by the summer 15 years after opening, with careful consideration to the aesthetics of soil nailed slopes and following the establishment of individual trees and mixed woodland as mitigation planting adjacent to the road, riparian woodland surrounding the pond (**Mitigation Items P03-LV08, P03-LV13, P03-LV16 and P03-LV17**) (see Figure 14.13) and the return of Compensatory Flood Storage Areas to agricultural use (**Mitigation Item P03-LV10**).

Photograph 14.17: Existing view northwards from Core Path MASG/127, taken in winter to the north of Kindallachan



*Local Paths (ch400 to ch8300) (Figure 14.4a-b)*

- 14.6.53 Walkers on Local Path 53 (receptor O4), north of the Tay Crossing would experience **Moderate/Substantial** impacts during the winter of the year of opening. These impacts would be due to the proposed realignment of this path from ch650 to ch800 to accommodate Ponds A1 and A2, the



proposed widening of the mainline, the introduction of a proposed roundabout at ch650 with lighting, soil nailed cutting slopes and large-scale cuttings associated with the southbound mainline widening between ch700 and ch1050 a retaining wall, mammal fencing and signage. Impacts would reduce to **Moderate** by the summer 15 years after opening, by minimising the landscape and visual impacts of the lighting columns and fixings and to prevent unnecessary glare or light spill and following the establishment of scattered trees and species-rich grassland on the proposed large cuttings to the east, and riparian woodland and individual trees to soften views to ponds, mammal fencing and the road (**Mitigation Items P03-LV8, P03-LV13, P03-LV16 and P03-LV17**).

- 14.6.54 Walkers on Local Path 55 (receptor O10), south-west of Rotmell Farm would experience a **Moderate** impact during the winter of opening from the eastern extent of the path, where it connects to the A9, due to the proposed mainline widening, associated earthworks and the resultant loss of existing woodland, enabling slightly greater visibility to vehicles on the road. These impacts would reduce to Negligible/Slight in the summer after 15 years, following the establishment of mixed woodland replacement planting along the proposed scheme and local path (**Mitigation Items P03-LV16 and P03-LV17**).
- 14.6.55 Walkers on Local Path 58 (receptor O15), which runs adjacent to the River Tay from south of Dowally Farm and Farmhouse (approximately ch3750) to Station Cottages (north of the proposed scheme extents) would experience **Substantial** impacts during the winter of the year of opening. These would occur as a result of increased visibility of the road due to the proposed mainline widening, views to the Guay South Overbridge, realigned and new side roads and associated earthworks and loss of existing roadside trees, woodland and agricultural land. In addition, impacts would arise from the introduction of Basin C and Pond H, retaining walls, hard-faced soil nailed cutting slope (between ch7300 and ch7700), Compensatory Flood Storage Areas, stone wall noise barrier at Dowally, roadside signage and mammal fencing (Figure 14.11). Impacts would be reduced to **Moderate** in the summer after 15 years with careful consideration to the aesthetics of soil nailed slopes and through mitigation planting, including the establishment of woodland, hedgerow and roadside trees, which would filter views to the road, side roads, junction and pond/basin (**Mitigation Items P03-LV8, P03-LV16 and P03-LV17**), as well as the return of Compensatory Flood Storage Areas to agricultural use (**Mitigation Item P03-LV10**).
- 14.6.56 Walkers on Local path 61 in Guay located between The Old School and Guay Cottages (receptor O20) would experience **Moderate** impacts during the winter of opening. These would arise from the proposed mainline widening; the introduction of the proposed Dowally to Kindallachan Side Road, Guay Farmhouse Access Road and the Kindallachan Direct Access; all associated earthworks and the resultant loss of roadside vegetation and agricultural land along the existing A9 road corridor; and the introduction of proposed mammal fencing, Compensatory Flood Storage Areas, Pond E, Swale E and a 2.4m high and 24m long noise barrier at The Knoll. Impacts would reduce to Slight in the summer after 15 years, following the establishment of riparian woodland to screen the pond and mainline as well as roadside trees to replace the loss of existing roadside trees along the southbound side of the widened mainline from ch5000 to 5200 (**Mitigation Items P03-LV16 and P03-LV17**) and the return of Compensatory Flood Storage Areas to agricultural use (**Mitigation Item P03-LV10**).
- 14.6.57 Walkers on Local Path 60 (receptor O19) that runs between the local path adjacent to the River Tay (receptor O15) and the existing A9 near Guay (approx. ch5240) would experience **Moderate/Substantial** impacts during the winter of opening when travelling east along the path, due to the proposed mainline widening, the Guay South Overbridge and side roads and associated earthworks and the resultant loss of existing roadside vegetation, and the introduction of mammal fencing, Compensatory Flood Storage Areas, Swale D1, roadside signage and a retaining wall and noise barriers at The Knoll and Guay Farmhouse. These impacts would not remain significant, with mixed woodland, hedgerow and individual tree planting along the proposed scheme replacing the lost resource where appropriate. Impacts would reduce to Slight/Moderate in the summer after 15 years, following the establishment of the mitigation planting (**Mitigation Items P03-LV16 and P03-LV17**) and the return of Compensatory Flood Storage Areas to agricultural use (**Mitigation Item P03-LV10**).
- 14.6.58 Walkers on Local Path 66 (receptor O24), which runs between the local path adjacent to the River Tay (receptor O15) and the existing A9 to the north and west of Haugh of Kilmorich (approx. ch7050), would experience **Moderate/Substantial** impacts during the winter of the year of opening. These impacts would result from the proposed mainline widening, the realigned and new side and access

roads and associated extensive earthworks, and the resultant loss of existing roadside trees, woodland and agricultural land. In addition, impacts would arise from the introduction of a proposed retaining wall at Haugh of Kilmorich, hard-faced soil nailed cutting slope (between ch7300 and ch7700), side road signage and mammal fencing. Impacts would reduce to **Moderate** in the summer 15 years after opening with careful consideration to the aesthetics of soil nailed slopes and following the establishment of mitigation planting, including mixed woodland, roadside trees and hedgerows, which would replace lost vegetation and filter views to the proposed scheme (**Mitigation Items P03-LV8, P03-LV16 and P03-LV17**) and the return of Compensatory Flood Storage Areas to agricultural use (**Mitigation Item P03-LV10**).

## 14.7 Statement of Significance

- 14.7.1 This section provides a summary of the DMRB Stage 3 visual assessment of impacts for the proposed scheme, taking into account the proposed mitigation measures incorporated in the design (e.g. alignment, design elements, grading out of earthworks), as described above in Section 14.5, in addition to the mitigation measures described in Section 13.5 of Chapter 13 (Landscape).
- 14.7.2 The assessment has identified a number of likely impacts associated with the proposed scheme, as shown in Table 1 in Appendices A14.1 and A14.2 respectively. Potentially significant (**Moderate** and above) impacts on visual receptors, in the context of this assessment, associated with the proposed scheme during construction and operation are set out in Tables 14.6 and 14.7.

**Table 14.6: Summary of Residual Impacts during Construction (Moderate and above)**

Receptor Type	Total No. of Receptors and %	Construction Impact Significance			Total Significant Impacts
		Substantial	Moderate/ Substantial	Moderate	
Built	78	13	4	10	27
	100%	17%	5%	13%	35%
Outdoor	32	7	5	6	18
	100%	22%	16%	19%	57%

- 14.7.3 People's views at approximately 27 built receptor locations (35%) and 18 outdoor receptor locations (57%) would be significantly affected during the construction phase of the proposed scheme; however, these impacts would be temporary (ranging in duration from under one month to approximately 37 months), and may not be significant for the full duration of their occurrence.

**Table 14.7: Summary of Residual Impacts during Operation (Moderate and above)**

Receptor Type	Total No. of Receptors and %	Operational Impact Significance						Total Significant Impacts	
		Substantial		Moderate/ Substantial		Moderate		Winter of the Year of Opening	Summer 15 Years after opening
		Winter of the Year of Opening	Summer 15 Years after Opening	Winter of the Year of Opening	Summer 15 Years after Opening	Winter of the Year of Opening	Summer 15 Years after Opening		
Built	78	9	3	5	2	13	7	27	12
	100%	12%	4%	6%	3%	17%	11%	35%	18%

Receptor Type	Total No. of Receptors and %	Operational Impact Significance						Total Significant Impacts	
		Substantial		Moderate/ Substantial		Moderate		Winter of the Year of Opening	Summer 15 Years after opening
		Winter of the Year of Opening	Summer 15 Years after Opening	Winter of the Year of Opening	Summer 15 Years after Opening	Winter of the Year of Opening	Summer 15 Years after Opening		
Outdoor	32	6	-	5	2	6	8	17	10
	100%	19%	-	16%	6%	19%	25%	54%	31%

14.7.4 People's views at approximately 27 built receptor locations (35%) and 17 outdoor receptor locations (54%) would be significantly affected during the winter of the year of opening of the proposed scheme.

14.7.5 By the summer, 15 years after the proposed scheme opening, mitigation – mostly in the form of new woodland, hedgerow, scrub and individual tree planting, as well as grass establishment – would reduce the impacts on built receptors. The impact at three built receptors – Guay Farmhouse (receptor 37), Haugh Cottage South and Haugh Cottage North (receptor 67) and Westhaugh of Tulliemet (receptor 69) would remain **Substantial**. The impacts on all outdoor receptors would be reduced. Tables 14.8 and 14.9 list the receptor locations (12 built and ten outdoor) where people would continue to experience significant visual impacts in the summer 15 years after opening.

**Table 14.8: Summary of Significant Impacts on Built Receptors in Summer 15 years after opening (Moderate and above)**

Built Receptor No	Receptor Name	Type (dw=dwelling, c=commercial, o=other)	Impact in Summer 15 Years after Opening
9	Warren Lodge	dw	Moderate
23	1-4 Dowally Cottages	dw	Moderate/Substantial
24	Dowally Church	o	Moderate
27	Dowally Farm and Farmhouse	dw (farm)	Moderate/Substantial
37	Guay Farmhouse	dw (farm)	Substantial
39	The Knoll, Guay	dw	Moderate
40	Gorchan, Poldornie, Ristol, Carnskerie House	dw	Moderate
50	Bracken Cottage, Atholl Cottage, Capanach Cottage, Ivy Cottage, Wayside Cottage, Kindallachan	dw	Moderate
52	1 and 2 Croft Croy, Kindallachan	dw	Moderate
62	Haugh of Kilmorich	dw	Moderate
67	Haugh Cottage South and Haugh Cottage North	dw	Substantial
69	Westhaugh of Tulliemet	dw (farm)	Substantial

**Table 14.9: Summary of Significant Impacts on Outdoor Receptors in Summer 15 years after Opening (Moderate and above)**

Outdoor Receptor No	Receptor Name	Type (f=footpath, c=cycleway, r=road)	Impact in Summer 15 Years after Opening (M=Moderate, S=Substantial)
O2B	RCR 83 (north of Rotmell)	c	Moderate
O4	Local Path 53	f	Moderate
O8B	Highland Main Line railway (north of Tay rail crossing)	rw	Moderate
O14	PKC Core Path DUNK/141/3, 4 and 5	f	Moderate/Substantial
O15	Local Path 58	f	Moderate
O16	PKC Core Path DUNK/141/1 and 2	f	Moderate

Outdoor Receptor No	Receptor Name	Type (f=footpath, c=cycleway, r=road)	Impact in Summer 15 Years after Opening (M=Moderate, S=Substantial)
O18A	U163 Guay to Tulliemet Road (at Guay)	r	<b>Moderate/Substantial</b>
O21	PKC Core Path DUNK/140/1 (including Local Path 63a)	f	<b>Moderate</b>
O24	Local Path 66	f	<b>Moderate</b>
O25	PKC Core Path MASG/127/1, 2 and 3	f	<b>Moderate</b>

## 14.8 References

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