17. Population - Accessibility

Summary

This chapter presents the assessment of the impact of the proposed scheme on walkers, wheelers, cyclists, and horse-riders (referred to as WCH). The assessment identifies outdoor areas and paths including core paths, rights of way, National Cycle Routes, horse riding routes and local paths within 500m of the proposed scheme. A total of 60 paths were identified as well as six WCH crossing points of the existing A9. Changes to WCH journey lengths and amenity value were assessed, and used to determine potential severance impacts on access to the outdoors. The assessment took into account mitigation embedded in the proposed scheme design, such as underpasses and new footways.

The proposed scheme design maintains existing use while providing safer access across the A9 for WCH within the study area. With the proposed scheme in place, significant adverse impacts have been largely avoided in key areas as a result of the provision of underpasses and maintaining existing WCH routes.

Moderate significant adverse effects will remain for WCH using paths 7a, 19, 22/NCR77 and 47 due to decreased amenity value associated with the proposed scheme and the limited opportunity for mitigation. Moderate significant residual effects during operation are also predicted for WCH using Path 48/NCR77 due to an increase in path length associated with the wider extents of the proposed scheme and for WCH using Path 33 due to a combination of a decrease in amenity value and changes to journey lengths. **Large** significance adverse effects will remain for the WCH paths 23 and 35 due to an increase in journey length arising from realigned crossing points associated with the proposed scheme.

Moderate significant adverse effects will remain for WCH accessing paths near Ring Wood and the River Braan during the operation phase of the A9. This is due to significant residual effects to paths 19, 33, 35 that are used to access these outdoor areas.

During construction, there will be significant adverse effects (**Moderate** to **Substantial**) for WCH using paths 19, 24, 25, 26a and 36 as a result of a decrease in amenity value for those paths. In addition, for WCH using paths 7, 7a, 22/NCR77, 23, 33, 35, 39, 48/NCR77 and NCR77 (south) (including crossing points CP01 and CP02), significant adverse effects (**Moderate** to **Substantial**) are also expected due to the resulting diversion lengths, as well as anticipated reductions of amenity value during construction. Consequently, for WCH accessing three outdoor areas (Birnam Hill, River Tay and River Braan), there are temporary but significant (**Moderate** to **Substantial**) residual adverse effects during construction. This is due to significant effects for the paths (23, 33, 35 and 39) being used to access these outdoor areas.

No significant residual adverse effects on public transport are anticipated during the construction or operation phases. Slight (beneficial) residual effects on bus services are anticipated due to a decrease in traffic congestion resulting in fewer delays and improved journey times on the A9.

17.1 Introduction

17.1.1 This chapter presents the Design Manual for Roads and Bridges (DMRB) Stage 3 Environmental Impact Assessment (EIA) of impacts on the journeys made by walkers, wheelers, cyclists and horse-riders (WCH) for the A9 Dualling Programme: Pass of Birnam to Tay Crossing (hereafter referred to as the proposed scheme).

17.1.2 This assessment is based on DMRB LA 112 'Population and Human Health' (National Highways et al, 2020a), which is also used to inform the assessments in Chapter 16 'Land Use' and Chapter 18 'Human Health'.

17.1.3 Guidance provided in DMRB LA 104 'Environmental Assessment and Monitoring' (National Highways et al, 2020b) was also utilised for the purposes of the accessibility assessment in relation to assigning significance of impact.

17.1.4 In accordance with DMRB LA 112 guidance (National Highways et al, 2020a), WCH is used to describe potential users of paths, these being defined as walkers, cyclists and horse-riders (WCH). Walkers, Cyclists and Horse-Riders (WCH) were previously referred to as Non-Motorised Users (NMU) under superseded DMRB Volume 11 'Pedestrians, Cyclists, Equestrians and Community Effects'. Consultation feedback highlighted that the DMRB definition of WCH can be an exclusionary term and does not include users that lie outside of these three categories, such as wheelchair users. Therefore, for the purposes of this assessment WCH is defined in this Environmental Impact Assessment Report (EIAR) to encompass walkers, wheelers, cyclists and horse-riders to reflect more accurately accessibility for all types of users.

17.1.5 This chapter focuses on the potential impacts of the proposed scheme on WCH due to changes to paths and access to outdoor areas in the study area in terms of changes to journey length and/or impacts on amenity value. The assessment also considers how access to public transport facilities would be affected by the proposed scheme.

17.1.6 Potential construction and operational impacts are separately assessed: impacts during construction are those resulting from construction activities, e.g. temporary diversions, while impacts during operation are those resulting from the existence of new carriageways, associated junctions and revisions to the WCH networks following completion.

17.1.7 This chapter makes reference to other chapters within the EIAR as follows:

- Chapter 16 (Population - Land Use) assesses community severance and impacts that the proposed scheme would have on access to residential and commercial land, community land and assets, development land and businesses, and agricultural land holdings for WCH.
- Assessment outputs from Chapter 8 (Air Quality), Chapter 15 (Noise and Vibration) and Chapters 10 and 11 (Landscape and Visual) inform the amenity assessment.

17.1.8 This chapter sets out the following:

- a description of the methodology used to predict and assess potential impacts on WCH;

- the baseline conditions relating to the type, location and extent of WCH provision within the study area and the frequency of use of the WCH provision;
- the baseline conditions within the study area relating to public transport;
- an assessment of the potential impacts of the proposed scheme on WCH and public transport; and
- mitigation measures for the proposed scheme;
- an assessment of the significant residual effects of the proposed scheme on WCH and public transport.

17.1.9 This chapter is supported by the following appendix and figures:

- Appendix A17.1: Impact Assessment for WCH Routes and Access to Outdoor Areas;
- Figure 17.1: Baseline Conditions;
- Figure 17.2: Potential Impacts on Walkers, Wheelers, Cyclists and Horse-riders (WCH) Routes and Proposed Mitigation;
- Figure 11.3: Visual Impact on Built Receptors;
- Figure 11.4: Visual Impact on Outdoor Receptors; and
- Figure 10.6: Landscape and Ecological Mitigation Proposals.

Legislative and Policy background

Land Reform Act (Scotland) Act 2003

17.1.10 The Land Reform (Scotland) Act 2003 Part 1 (the Act; Scottish Government, 2003) came into effect in February 2005 and established statutory rights of responsible access on and over most land and inland water in Scotland. The legislation offers a general framework of responsible conduct for both those exercising rights of access and for landowners.

17.1.11 Under the Act, local authorities were granted new powers and duties to uphold and facilitate responsible access rights. There is a duty on local authorities to prepare a plan for a path network and to keep a list of 'core paths'. Sections 13 and 19 of the Act state:

> *"It is the duty of the local authority to assert, protect and keep open and free from obstruction or encroachment any route, waterway or other means by which access rights may reasonably be exercised'; and*
>
> *'The local authority may do anything which they consider appropriate for the purposes of maintaining a core path and keeping a core path free from obstruction or encroachment".*

17.1.12 Section 10 of the Act states that it is the duty of NatureScot (formerly known as Scottish Natural Heritage (SNH)) to prepare and issue a Scottish Outdoor Access Code, setting out guidance in relation to access rights and responsibilities. Furthermore, it is the duty of NatureScot and local authorities to publicise the Code and for NatureScot to promote understanding of it. The Code was approved by the Scottish Parliament in July 2004 and is maintained by the National Access Forum (NAF), set up by NatureScot.

Equality Act 2010

17.1.13 The Equality Act came into force in October 2010 (UK Government, 2010), replacing the amended Disability Discrimination Act 2005 (UK Government, 2005). The Act introduced a new public sector general equality duty, which requires Scottish public authorities to pay 'due regards' to the need to:

- eliminate unlawful discrimination, victimisation and harassment;
- advance equality of opportunity; and
- foster good relations.

17.1.14 Transport Scotland's 'Roads for All: Good Practice Guide for Roads' (Transport Scotland, 2013a) outlines the key elements in the process which should be followed when designing a road improvement scheme to ensure the needs of disabled people are integrated into the design. The proposed scheme design and mitigation proposed takes cognisance of the requirements set out in the Equality Act and the Good Practice Guide.

17.1.15 An assessment of the proposed scheme's compliance with national and local planning policy, for example Scotland's National Planning Framework 4 (NPF4) (Scottish Government, 2024), is provided in Section 17.7 of this chapter.

17.2 Methodology

Walkers, wheelers, cyclists and horse-riders

Introduction

17.2.1 In accordance with DMRB LA 112, the assessment of impacts on WCH as a result of the proposed scheme considers changes in journey lengths.

17.2.2 For the purposes of the accessibility assessment reported in this chapter and to inform a more complete picture of impacts on WCH as a result of the proposed scheme, changes to journey amenity have also been considered. Rationale for including amenity in the scope of the assessment is provided in paragraphs 17.2.36 to 17.2.39.

17.2.3 Paths used by WCH are important because they can provide access to local countryside and more remote areas on foot, wheels, bike or horse; opportunities for long-distance travelling; safe, non-motorised access to shops, places of business and schools; sports facilities; and opportunities to integrate access and land management.

17.2.4 The use of paths can help to improve health, reduce social exclusion (refer to Chapter 18: Population - Human Health) and, unlike other modes of transport, generally has fewer associated costs (e.g. fuel and travel tickets). A good path network can also inspire visitors to enjoy the outdoors and to visit places of landscape, historical, cultural and natural interest. This can encourage financial expenditure and support the local economy.

17.2.5 In accordance with NatureScot guidance on EIA (SNH, 2018), likely significant effects on access to outdoor areas has been considered in this assessment. Outdoor access areas considered in line with NatureScot guidance are presented in Table 17.1.

Table 17.1: Outdoor Access Areas Considered

Area Based Facilities	National, Regional and Country parks
	Geoparks
	Areas subject to a S.49A Management Agreements, including public access. A S.49 Management Agreement is defined in the Countryside (Scotland) Act 1967 as *"[NatureScot] may enter into an agreement with any person having an interest in land to do, or to secure the doing of, whatever in the opinion of the parties to the agreement may be necessary to secure the conservation and enhancement or to foster the understanding and enjoyment of the natural heritage of Scotland."*
	National Nature Reserves and Local Nature Reserves
	Local open space and green infrastructure
	Inland lochs and reservoirs
	Promoting surfing, diving and climbing sites
Linear Access Facilities	Core paths and wider networks available through access rights
	Long distance routes, regional routes, National Cycle Network
	Any other public rights of way that are not identified as core paths or local paths
	Permissive paths and routes on land where access rights do not apply
	Rivers and canals

17.2.6 There are several outdoor area-based facilities within the study area or immediate vicinity that are accessed by WCH routes identified in the study area and these are listed in paragraph 17.3.13. Potential impacts on linear access facilities such as NCR77 have been assessed under the subheading Footpaths/Cycleways and Other Routes in Section 17.4, with linear facilities split into sections (such as NCR77 north, NCR77 south and NCR77 Little Dunkeld) where appropriate.

17.2.7 Impacts on community land, facilities and greenspace in terms of vehicular access and severance are considered in Chapter 16 (Population: Land Use).

Study Area

17.2.8 DMRB LA 112 states the following in relation to the assessment of impacts on WCH:

> *"The study area shall be based on the construction footprint/project boundary (including compounds and temporary land take) plus a 500m area surrounding the project boundary.*
>
> *Where likely effects are identified outside the 500m area surrounding the project boundary, the study area should be extended accordingly.*

Where effects are unlikely to occur within the 500m area surrounding the project boundary, the study area should be reduced accordingly."

17.2.9 Accordingly, the study area was defined as up to 500m from the proposed scheme as shown on Figure 17.1. However, the assessment of impacts in some instances extended beyond this to allow for consideration of potential effects on the ability for WCH to access outdoor locations beyond the study area.

Baseline Conditions

17.2.10 Baseline data were collected through desk-based studies and consultation.

Desk-based Assessment

17.2.11 The desk-based study included a review of digital Ordnance Survey (OS) maps (provided by Transport Scotland in 2020), Perth & Kinross Council's (PKC) Core Paths Plan (PKC, 2017a) and a web-based search to identify existing paths including core paths, public rights of way and local paths, as well as outdoor areas. The leaflets 'Countryside Trails – Dunkeld' and 'Dunkeld Path Network' were used to identify promoted walking routes that pass through the study area and provide access to outdoor areas (Atholl Estates, 2022; PKC, 2017b). In addition, aerial photography provided by Transport Scotland was reviewed (BLOM Survey, 2013). Figures 17.1 and 17.2 show the paths identified in this assessment. It should be noted that local paths have generally only been identified within the study area, however, the data sets for core paths, rights of ways and cycle routes extend beyond 500m.

17.2.12 The Land Reform (Scotland) Act 2003 (Scottish Government, 2003) establishes statutory rights of responsible access on and over most land. The outdoor areas identified in paragraph 17.3.13 therefore include areas of privately-owned land that may be used informally by the community in addition to the Community Land identified in Chapter 16 (Population – Land Use).

17.2.13 The baseline assessment was also informed by a review of the following documents:

- Accessibility Audit – Objectives Setting & Context Report. A9 Dualling Preliminary Engineering Services (Jacobs, 2014a); and
- Cycle Audit – Objectives Setting & Context Report. A9 Dualling Preliminary Engineering Services (Jacobs, 2014b).
- A review of publicly available and requested data from relevant sources including Sustrans, Strava and a review of OS maps to identify:
  - existing paths (recreational and functional), and rights of way used by walkers, wheelers, cyclists and horse-riders;
  - key views and areas of scenic quality from the proposed scheme area;
  - outdoor access facilities as specified in Appendix 6, Table 1 of 'Environmental Impact Assessment Handbook' (SNH, 2018);
  - area based facilities (e.g. parks, local open spaces, inland lochs reservoirs, woodlands) and linear facilities (e.g. paths, rights of way, cycleways); and

- public transport links including bus and train routes.

Site Walkover and Surveys

17.2.14 A site walkover has not been undertaken for the accessibility assessment. Photographs and information were provided by site surveys undertaken for other topic areas where required.

Consultation

17.2.15 Consultation has been undertaken with the organisations identified in Table 17.2:

Table 17.2: List of Consultees Considered in the Assessment

Consultees	
▪ British Horse Society ▪ Cycling UK* ▪ Cycle Touring Club ▪ Cycling Scotland ▪ HITRANS* ▪ Living Streets Scotland* ▪ Mobility and Access Committee (MACS) Scotland* ▪ National Access Forum (NAF) ▪ North of Scotland Cycling	▪ Perth and Kinross Council ▪ Ramblers Scotland ▪ Scottish Disability Equality Forum ▪ Scotbus ▪ ScotWays ▪ Scottish CityLink ▪ Stagecoach ▪ Spokes for Folks* ▪ Sustrans Scotland* ▪ Trailforks ▪ Velocity café

*Indicates attendees of the NMU Forum

17.2.16 Appendix A7.1 (Summary of Consultation Reponses) provides a summary of meetings undertaken with some of the consultees listed in Table 17.2 in relation to the accessibility assessment.

Number and Type of User

17.2.17 DMRB LA 112 recommends that targeted consultation and surveys be undertaken to obtain frequency/use data for WCH. WCH surveys were undertaken to inform the DMRB Stage 3 WCH Assessment for the proposed scheme and the results have also been used to inform the accessibility assessment.

17.2.18 As stated in paragraphs 17.1.10 and 17.1.11, the Land Reform (Scotland) Act 2003 (Scottish Government, 2003) imposes certain requirements on local authorities for maintaining public access. In addition, NPF4 aims to improve open space, making it “cleaner, safer and greener” (Scottish Government, 2024). NPF4 also aims to improve recreation opportunities and amenities and improve access for WCH, and it is therefore considered that regardless of levels of use and types of user, all routes should be maintained and/or improved where practicable.

17.2.19 For this assessment, the type of user (including use by vulnerable users) on WCH routes was determined from information provided during consultation with relevant bodies.

Impact Assessment

17.2.20 The assessment of potential impacts of the proposed scheme on journey length for WCH was undertaken with reference to DMRB LA 112.

17.2.21 The assessment of potential impacts of the proposed scheme on amenity for WCH was also undertaken with cognisance of previous DMRB guidance, Volume 11 Part 8 'Pedestrians, Cyclists, Equestrians and Community Effects' (Highways Agency et al. 1989). This approach to the amenity assessment was developed based on professional judgement developed through experience of undertaking DMRB Stage 3 assessments of trunk road schemes in Scotland, and has taken into account WCH's experience of paths in terms of views, air quality and traffic noise.

17.2.22 The significance of potential impacts on journey length for WCH was determined as a function of sensitivity and magnitude, as specified in Table 17.5. The assessment of potential impacts on amenity of WCH in the study area is described in paragraphs 17.2.36 to 17.2.44.

17.2.23 The potential impact of the proposed scheme on WCH overall was determined by considering changes in both journey length and amenity using the approach detailed in paragraph 17.2.45.

17.2.24 Impacts are considered for both construction and operational stages of the proposed scheme.

17.2.25 An assessment of residual effects of the proposed scheme is also provided, taking into account the mitigation measures identified in Section 17.5 (Mitigation).

Sensitivity

17.2.26 DMRB LA 112 refers to *'national trails and routes likely to be used for both commuting and recreation that record frequent (daily) use'* as being classed as Very High sensitivity.

17.2.27 In acknowledgement of the statutory duties placed on local authorities by the Land Reform (Scotland) Act 2003 (Scottish Government, 2003), outlined in paragraph 17.1.10, sensitivity criteria were also determined based on importance (the level of formal recognition of a pathway) as well as the types of main users (e.g. some footpaths are considered to be more sensitive than cycle routes).

17.2.28 Table 17.3 outlines the sensitivity criteria applied in this assessment. Criteria from DMRB LA 112 has been supplemented with additional parameters related to the level of formal recognition of a pathway. Where a path could be attributed to more than one category (e.g. a core path may also be a claimed right of way) the highest sensitivity rating was applied. Vulnerable users include children, elderly persons, and those affected by a disability.

Table 17.3: Environmental Sensitivity Descriptions for Effects on WCH

Sensitivity	Parameters
Very High	▪ National trails and routes likely to be used for both commuting and recreation that record frequent (daily) use. ▪ Routes regularly used by vulnerable travellers such as the elderly, school children and people with disabilities. ▪ Rights of way and Core Paths for WCH crossing roads at grade with >16,000 vehicles per day.
High	▪ Regional trails and routes likely to be used for recreation and to a lesser extent commuting, that record frequent (daily) use and have limited potential for substitution. ▪ Rights of way and Core Paths for WCH crossing roads at grade with >8,000 – 16,000 vehicles per day. ▪ Routes used to access tourist destinations. ▪ Vindicated rights of way and asserted rights of way. ▪ Core paths/proposed core paths.
Medium	▪ Public rights of way and other routes close to communities which are used for recreational purposes (e.g. dog walking), but for which alternative routes can be taken. These routes are likely to link to a wider network of routes to provide options for longer, recreational journeys, and/or ▪ Rights of way for WCH crossing roads at grade with >4,000 – 8,000 vehicles per day.
Low	▪ Routes which have fallen into disuse through past severance or which are scarcely used because they do not currently offer a meaningful route for either utility or recreational purposes, and/or ▪ Rights of way for WCH crossing roads at grade with <4,000 vehicles per day. ▪ Local routes/other paths outwith the above categories. ▪ Locally important community land (e.g. local parks and playing fields).

17.2.29 Community assets used by vulnerable groups, for example schools and medical practices, where applicable, have been identified in Chapter 16 (Population – Land Use) and are shown on Figure 16.1. The potential impacts on human health due to a change in access to community assets are outlined in Chapter 18 (Population – Human Health). Table 17.8 describes the paths in the study area and provides a sensitivity rating in line with the parameters in Table 17.3. As outlined in Table 17.3, the sensitivity rating of paths takes into consideration use by vulnerable groups.

Changes in Journey Length and Accessibility

17.2.30 Changes in journey length can result from direct impacts (e.g. closure of paths/cycleways and/or diversion routes as a result of the proposed scheme) or indirect impacts (e.g. as a result of increases in traffic flow on roads crossed by or adjacent to paths, which may result in WCH deciding to use an alternative route).

17.2.31 Desk-based assessment and consultation were used to identify where paths currently cross the proposed scheme footprint. The existing journey lengths for paths were derived from Perth and Kinross Core Paths Plan, Rights of Way data from ScotWays, local paths identified from on-line sources and OS maps, and through consultation. The start and end points of these paths were defined by the sources listed. All paths where a change in journey length was anticipated as a result of the proposed scheme were marked as Journey Length Assessment (JLA) paths, as shown on Figure 17.2. These JLA routes are shown on the baseline (upper section of Figure 17.2) and also within the context of the proposed scheme (lower section).

17.2.32 In accordance with DMRB, changes in traffic flows based on Annual Average Daily Traffic over 24 hours (AADT24) are reported for opening year (2036) with and without the proposed scheme.

17.2.33 Criteria are provided in DMRB LA 112 to determine magnitude of impact resulting from changes in journey length as shown in Table 17.4. It should be noted that whilst DMRB LA 112 advises that any decrease in journey length is beneficial, and any increase is adverse, this is not always considered to be reflective of the effects experienced. For example, a recreational track through a woodland may be shortened due to a development, which would register as a decrease in journey length and therefore beneficial impact. However, this impact may in effect be an adverse impact as there is less of a recreational resource for users and there is less accessibility through the woodland. Therefore, professional judgement is used to determine whether increases or decreases in journey length are adverse or beneficial, taking into account the nature of the path and its users. Identified effects are considered to be adverse, unless otherwise stated.

Table 17.4: Magnitude of Impact Criteria for Changes to Journey Length (National Highways et al, 2020a)

Magnitude	Characteristics
Major	>500m increase / decrease in WCH journey length.
Moderate	>250m - 500m increase or decrease in WCH journey length.
Minor	>50m - 250m increase or decrease in WCH journey length.
Negligible	<50m increase or decrease in WCH journey length.
No change	No loss or alteration of characteristics, features, elements or accessibility; no observable impact in either direction.

17.2.34 The significance of effect on journey length was then determined using the matrix in Table 17.5, as per Table 3.8.1 provided in DMRB LA 104.

Table 17.5: Significance of Effect on Journey Length

Magnitude / Sensitivity	No change	Negligible	Minor	Moderate	Major
Very High	Neutral	Slight	**Moderate or Large***	**Large or Very Large***	**Very Large***
High	Neutral	Slight	Slight or **Moderate***	**Moderate or Large***	**Large or Very Large***
Medium	Neutral	Neutral or Slight*	Slight	**Moderate**	**Moderate or Large***
Low	Neutral	Neutral or Slight*	Neutral or Slight*	Slight	Slight or **Moderate***
Negligible	Neutral	Neutral	Neutral or Slight*	Neutral or Slight*	Slight

*Where significance is between two impacts, using the precautionary principle, the higher impact shall be applied unless there are mitigating circumstances that justify the selection of the lower impact.

17.2.35 For the purposes of this assessment, impacts were considered to be 'significant' in the context of the Roads (Scotland) Act 1984 (Environmental Impact Assessment) Regulations 2017 (UK Government, 1984); hereafter referred to as the 'EIA Regulations') where the assessment results indicate impacts of Moderate or higher significance.

Changes in Amenity

17.2.36 As discussed in paragraph 17.2.5, in accordance with NatureScot's EIA Handbook (SNH, 2018), likely significant effects on access to outdoor areas have been considered in this assessment. Potential impacts could include a reduction or enhancement in amenity of an outdoor area or route. Whilst not a requirement of DMRB LA 112, the accessibility assessment takes cognisance of the NatureScot EIA handbook, as well as DMRB guidance, and therefore includes an assessment of impacts on amenity for WCH.

17.2.37 NatureScot's EIA Handbook (SNH, 2018) identifies the close relationship between the likely effects of development on visual amenity and on outdoor recreation. It acknowledges that developments can both physically affect people's ability to engage with outdoor recreation as well as having wider effects on the settings where recreation takes place which can indirectly affect people's enjoyment of the outdoors. The guidance states that impacts on outdoor recreation should be integrated with other assessments throughout the EIA process where relevant.

17.2.38 Additionally, the amenity assessment is necessary to provide a balanced conclusion of the potential impacts on WCH. As stated in 17.2.33, an increase in journey length is considered to be adverse, however, this may not always be the case as an increase in the length of a journey as a result of re-routing down a more aesthetically pleasing or safer path may be considered beneficial, or a reduction in the length of a recreational route may be considered adverse.

17.2.39 Amenity relates in particular to the exposure of WCH to traffic and associated noise, air quality and safety aspects, however visual impacts and paths/cycleway widths are also considerations. It is acknowledged that any changes in amenity would be subjective. However, for the purposes of this assessment, it has been assumed that where WCH would experience a reduction in traffic or road-related noise, and/or an improvement to visual amenity, and/or improvement in air quality or safety, there would be a possible perceived improvement in amenity. Conversely, an increase in any such traffic or road-related impacts or a possible perceived reduction in safety has been assumed to constitute a reduction in amenity. Therefore, changes in amenity were considered where:

- existing paths would be crossed by the proposed scheme;
- traffic flows would potentially affect paths along a WCH route or at a crossing point;
- noise and air quality on existing paths would potentially be significantly increased or decreased; or
- the proposed scheme would be visible from existing paths.

17.2.40 In line with DMRB Volume 11 Part 8 'Pedestrians, Cyclists, Equestrians and Community Effects' guidance (Highways England et al, 1993a), the assessment of change to amenity on WCH routes does not make use of sensitivity or magnitude criteria, or an assessment matrix to determine significance of impacts. Impact significance is determined qualitatively, using professional judgement and taking into account the magnitude of change with respect to existing views, air quality, traffic flows and noise levels.

17.2.41 Air quality, landscape, visual and noise assessments are reported in Chapters 8 (Air Quality), 10 (Landscape), 11 (Visual) and 15 (Noise and Vibration). Traffic flows throughout the day have been determined using data from the strategic traffic model for the proposed scheme and the AADT24 reported for the opening year (2036), with and without the proposed scheme, and were used for the assessment. It is important to note that traffic flows provided in this chapter only relate to sections of the selected road where paths intersect and are therefore not necessarily representative of the full length of the road. Community severance resulting from increased traffic flows is assessed separately in Chapter 16 (Population – Land Use).

17.2.42 In determining the overall significance of potential amenity impacts, the visual impact is based on the winter of the year of opening (2036) (as described in Chapter 11: Visual) and the noise impact is based on the short-term scenario (as described in Chapter 15: Noise and Vibration). The residual effect significance incorporates the visual impact at summer 15 years after opening (once landscape planting has established) and the noise impacts in the long-term scenario.

17.2.43 Where a path in the accessibility assessment has not been identified as an outdoor receptor in Chapters 10 (Landscape) and 11 (Visual), the impact significance for the built receptor nearest the path was used.

17.2.44 The significance of impact criteria for change in amenity are described in Table 17.6. Identified effects are considered to be adverse, unless otherwise stated.

Table 17.6: Significance of Impact on Amenity

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

Overall Impacts on WCH (journey length and amenity)

17.2.45 To determine overall significance of impacts on WCH, changes in journey length and amenity were considered together using professional judgement. Overall significance was determined based on these two factors having an equal weighting of importance. Where an impact is only identified for one factor, the degree of overall significance was reduced accordingly.

Access to Outdoor Areas

17.2.46 The objective of the outdoor access assessment is to determine any likely significant effects on access to the outdoors (NatureScot's EIA Handbook; SNH, 2018). This includes the ability to make use of an outdoor area or path and the ease with which access can be gained. The assessment was undertaken for linear and area-based facilities identified in the DMRB assessment as outlined above.

Public Transport

17.2.47 Public transport has been considered in terms of the potential for disruption in access to facilities during both the construction and operational phases.

17.2.48 The study area for the effects on travellers of public transport is the same as that for WCH as described in paragraph 17.2.8.

17.2.49 In the absence of specific guidance available for this aspect of the assessment in DMRB, the assessment of effects on access to public transport has been undertaken using a descriptive and qualitative approach based on professional judgement.

17.2.50 Impacts are considered to be adverse where access to public transport would be impeded or made less convenient, and impacts are considered to be beneficial where access to public transport would be improved and made more convenient.

17.2.51 Adverse impacts as a result of the proposed scheme are considered to be significant, where the impact on access to public transport would be impeded or disrupted to the extent that it

would deter users from the facilities. Conversely, beneficial impacts are considered to be significant, where the proposed scheme is considered to improve access to public transport facilities, such that there would be an uptake in their use.

Driver Stress

17.2.52 Assessment of impacts on driver stress was a requirement of the now withdrawn DMRB Volume 11, Section 3, Part 9 (Vehicle Travellers), but it is not a requirement of DMRB LA 112. Therefore, impacts on driver stress are not considered further in this chapter. Information on potential effects of the proposed scheme on driver stress is provided in Chapter 2 (Need for the Scheme).

Cumulative Effects

17.2.53 Potentially significant cumulative effects of the proposed scheme, and those of the proposed scheme in combination with other reasonably foreseeable developments, are assessed in Chapter 21 (Assessment of Cumulative Effects).

Limitations to Assessment

17.2.54 The assessment of construction impacts of the proposed scheme was based on the information provided in Chapter 6 (The Proposed Scheme). However, the locations of temporary construction activities are subject to change once the proposed scheme is adopted by the Contractor. This creates the potential for impacts on WCH during construction to change from what is reported at the time of assessment, due to presence or absence of temporary construction activities in the study area. However, any change is unlikely to impact the significance of effects identified within this assessment.

Vehicle Travellers (View from the Road and Lay-bys)

17.2.55 The 'View From the Road and Lay-bys' assessment was undertaken in accordance with the guidance provided in DMRB Volume 11, Section 3, Part 9: Vehicle Travellers (Highways England et al, 1993b). The assessment takes into account the types of scenery or landscape character through which travellers will pass through, the extent to which travellers using the proposed scheme would be able to view the scene, the quality of the landscape and features of particular interest or the prominence of the view and the sequence in which they are seen. The 'View From the Road and Lay-bys' assessment is reported in Chapter 11 (Visual).

17.3 Baseline Conditions

17.3.1 The baseline conditions for the study area are described in this section, listed in Tables 17.7 and 17.8 and shown on Figure 17.1.

Core Paths

17.3.2 Local authorities have a duty to prepare a Core Paths Plan under the Land Reform (Scotland) Act 2003 (Scottish Government, 2003). PKC is the local authority responsible for access within the study area. The PKC Core Paths Plan was adopted on 25 January 2017 (revised in 2017) and aims to satisfy the basic needs of local people and visitors for general access and

recreation, and to provide links to the wider path network throughout the region (PKC, 2017a). The core path network is a key part of outdoor access provision and is meant to cater for all types of user including walkers, wheelers, cyclists, horse-riders and people with disabilities.

17.3.3 Core paths may include routes such as public rights of way, footpaths, tracks, cycle tracks, paths which are, or may be covered by path agreements or path orders under the Land Reform (Scotland) Act 2003 (Sections 20 and 21), waterways, or other means by which persons may cross land (Scottish Government, 2003). In establishing the Core Paths Plan, consideration of likely usage and desirability of paths is balances with landowner interests.

17.3.4 There are 33 paths designated as core paths within study area as shown on Figure 17.1.

Photograph 17.1: Core path adjacent to the A9 northbound carriageway part of the Inver Path (Path 44)

Public Rights of Way

17.3.5 A public right of way is a defined route which has been used by the general public for at least 20 years and links two places (usually public roads). Public rights of way vary from long hill routes (often historical drove or kirk roads) to local routes or as short cuts to shops, schools and other local amenities.

17.3.6 ScotWays maintains the national Catalogue of Rights of Way (CROW; Scotways, 2024), in partnership with NatureScot. In addition, many local authorities also have their own records. Access along public rights of way is protected by the Countryside (Scotland) Act 1967, Section 46 requiring the local authority to 'assert, protect and keep open and free from obstruction or encroachment any public rights of way' (UK Government, 1967). Diversions can be considered if the proposed diversion is deemed appropriate by the planning authority. Photograph 17.2 shows a right of way (which is also a core path that forms part of Birnam Riverside Path (Path 24)).

17.3.7 There are eight paths designated as public rights of way within the study area, as shown on Figure 17.1 and listed in Table 17.8.

Photograph 17.2: Core path and right of way forming part of Birnam Riverside Path (Path 24)

Local Paths

17.3.8 Unlike core paths and public rights of way, local paths hold no statutory designation. Local paths can either be pavements adjacent to roads or off-road paths. There are 20 local paths identified within the study area, as shown on Figure 17.1 and listed in Table 17.8.

National and Regional Cycle Routes

17.3.9 The National Cycle Network is a UK network of cycle routes (national and regional) and was created by Sustrans. The routes are a combination of pedestrian routes, disused railways, minor roads, canals towpaths and traffic calmed routes. In some cases, National Cycle Routes (NCRs) and/or Regional Cycle Routes (RCRs) are also designated as core paths or public rights of way. National Cycle Routes form part of the National Walking, Cycling and Wheeling Network (Liveable Places), a National Development in the Scottish Government's NPF4 (Scottish Government, 2024).

17.3.10 There is one NCR (NCR77) that passes through the study area as shown on Figure 17.1 and in Photograph 17.3. Paths NCR77 (south), NCR77 (Little Dunkeld), NCR77 (north), 22, 28, 34, 38, 43 and 48 are all part of this route.

Photograph 17.3: National Cycle Route 77 between B867 and Dunkeld & Birnam Station

17.3.11 The area around Dunkeld is well-regarded for mountain biking, with 170 trails identified (Trailforks, 2021). The routes use a variety of existing paths within and around the study area, including some of the paths identified within Table 17.8. There is a high concentration of routes around The Hermitage, Tay Forest Park and Inver, with several of these routes ending at the boundary of the existing A9.

Existing A9 WCH Crossing Points

17.3.12 There are six existing A9 WCH Crossing Points (CP) as shown in Table 17.7 and on Figure 17.1. CP01 and CP02 are also shown in Image 17.1 and Image 17.2 respectively and CP04 is shown in Photograph 17.4 after Table 17.7 below.

Table 17.7: WCH crossing points within study area

Reference	Main Users*	Type of existing crossing point	Description of Crossing Point	Baseline Amenity**
CP01 (Figure 17.1a)	Walkers, wheelers and Cyclists	At-grade	WCH cross the existing A9 via an at-grade crossing using Path 7.	No dedicated WCH provision at-grade crossing of the A9. Traffic flow on the existing A9 at this location is 16,500 AADT two-way.
CP02 (Figure 17.1b)	Walkers and wheelers	At-grade	WCH cross the existing A9 via an at-grade crossing using Path 23.	No dedicated WCH provision at-grade crossing of the A9. Traffic flow on the existing A9 at this location is 17,500 AADT two-way.
CP03 (Figure 17.1b)	Walkers, wheelers and Cyclists	Grade separated (underpass)	WCH cross underneath the existing A9 via the Birnam Glen Underbridge using Path 28/NCR77.	CP03 is on a pavement adjacent to the Birnam Glen beneath the A9 and Highland Main Line railway. Traffic flow on the existing A9 at this location is 15,900 AADT two-way.
CP04 (Figure 17.1b-c)	Walkers and wheelers	Grade separated (underpass)	WCH cross underneath the existing A9 via the River Braan Underbridge using Path 35 on both the east and west sides of the River Braan and utilise the existing WCH bridge to cross the river. Note: this bridge was washed away during Storm Babet (October 2023) and, at the time of writing, has a diversion route in place as a result.	WCH use a walkway on the River Braan bridge to cross. It is separated from traffic and has views of the river and tree-lined banks. Traffic flow on the existing A9 at this location is 15,900 AADT two-way.
CP05 (Figure 17.1d)	Walkers and wheelers	Grade separated (Underbridge)	WCH cross underneath the existing A9 via the existing bridge of the River Tay on the south bank of the river using Path 35.	CP05 is separated from traffic and is within a forested area with views of the River Tay. Traffic flow on the existing A9 at this location is 15,500 AADT two-way.

Reference	Main Users*	Type of existing crossing point	Description of Crossing Point	Baseline Amenity**
CP06 (Figure 17.1d)	Walkers, wheelers and Cyclists	Grade separated (Underbridge)	WCH cross underneath the existing A9 via the existing bridge of the River Tay on the north bank of the river using Path 38/NCR77.	CP06 is separated from traffic on a compacted surface and has views of the River Tay. Traffic flow on the existing A9 at this location is 15,500 AADT two-way.
* Although predominant users of the paths are identified, it should be noted that access is not limited to a single user group. ** Traffic Flows are AADT 24hr, 2017 without the proposed scheme.				

Image 17.1: At-grade crossing point CP01, Path 7 (Image from Mapillary Imagery Service captured July 2019)

Image 17.2: At-grade crossing point CP02, Path 23 (Image from Mapillary Imagery Service captured July 2019)

Photograph 17.4: Grade separated crossing point CP04, Path 35 (view of crossing on east bank of River Braan) (note that bridge was washed away during a flood event)

Access to Outdoor Areas

17.3.13 Outdoor areas comprise local open space and green space that are used by the public for recreational purposes. For further details of community land, reference should be made to Chapter 16 (Population – Land Use). The key outdoor areas considered within this assessment are listed below:

- Atholl Wood (Figure 17.1e);
- Birnam Hill (Figure 17.1b);
- Birnam Wood (Figure 17.1a);
- Byres Wood (Figure 17.1a);
- Dalpowie Plantation (Figure 17.1a);
- Inchewan Burn (Figure 17.1b-c);
- Inver Wood (Figure 17.1d-e);
- The Hermitage (Figure 17.1d);
- Polney Loch (Figure 17.1c);
- Ring Wood (Figure 17.1a-b);
- River Braan (Figure 17.1c);
- River Tay (Figure 17.1a-e);
- Rochanroy Wood (Figure 17.1a);
- Rohallion Loch (Figure 17.1a);
- Tay Forest Park - Craigvinean Plantation (Figure 17.1d-e); and

- Tay Forest Park - Ladywell Plantation (Figure 17.1c).

17.3.14 The WCH paths that provide access to these outdoor areas, as well as promoted walking/cycling routes are listed in Table 17.8.

Table 17.8: Path network within study area

Path	Designation	Main Users*	Sensitivity	Access to Outdoor Areas**	Baseline Journey Length (m)	Baseline Amenity / Description
NCR77 (south) Figure 17.1a	National Cycle Route NCR77	Cyclists	Very High	Provides access to Birnam Wood, Rohallion Loch and Ring Wood.	4,080	The NCR is on road at this section, following the B687 and has a 24-hour two-way traffic flow of 900 AADT. The route connects into Paths 8, 16, 19, 20 and Path 22/NCR77.
NCR77 (Little Dunkeld) Figure 17.1b	National Cycle Route NCR77	Cyclists	Very High	No direct access provided to the outdoor areas listed in paragraph 17.3.13.	810	The NCR is on-road in this section on Perth Road through Birnam and has a 24-hour, two-way traffic flow of 2000 AADT. The NCR heads north across the Dunkeld Bridge on the A923 which has a 24-hour two-way traffic flow of 4100 AADT. The path has open views of the River Tay and Dunkeld at this location. Connects into Paths 25, 28/NCR77 and 34/NCR77.
NCR77 (north) Figure 17.1d	National Cycle Route NCR77	Cyclists	Very High	Provides access to Tay Forest Park - Craigivean Plantation.	5,230	The NCR joins the Atholl Estate road and ties into the Old Military Road. Path upgrades have recently taken place to resurface sections of this path to improve its condition that was historically susceptible to deterioration during periods of adverse weather. Connects into Paths 48/NCR77, 35 and 45. Path runs from the Littleton Burn to Athol Street A923.
1 Figure 17.1a	Local Path (non-designated)	Walkers and wheelers	Medium	Provides access to Byres Wood.	577	The path follows a field boundary next to Byres Wood and crossed the railway line tunnel at this location. Connects into Path 2.

Path	Designation	Main Users*	Sensitivity	Access to Outdoor Areas**	Baseline Journey Length (m)	Baseline Amenity / Description
2 Figure 17.1a	Local Path (non-designated)	Walkers and wheelers	Medium	Provides access to Byres Wood.	800	The path goes through Byres wood from the existing A9 and connects to Path 1 and towards the sawmill.
3 Figure 17.1a	Core Path SPIT/108	Walkers and wheelers	High	No direct access to outdoor areas.	882	Path 3 connects into Paths 4 and 7 in the south of the study area.
4 Figure 17.1a	Core Path SPIT/109	Walkers and wheelers	High	Provides access to the River Tay.	980	Path 4 is a riverside path connecting into Paths 3 and 7.
5 Figure 17.1a	Core Path SPIT/113	Walkers and wheelers	High	Provides access to Birnam and Byres Wood.	632	The path goes from the sawmill along Birnam Burn through Byres Wood and joins the B867.
6 Figure 17.1a	Local Path (non-designated)	Walkers and wheelers	Medium	Provides access to Byres Woods.	375	Path 6 is an access track through Byres Wood. Connects into Paths 5 and 8.
7 Figure 17.1a	Local Path (non-designated)	Walkers and wheelers	Medium	Provides access to the Dalpowie Plantation.	1,030	Path 7 is an access track located parallel to the existing A9. Provides local access to an at-grade crossing point of the A9 (CP01) and connects into Paths 3 and 4. This path has direct access to/from the existing A9.
7a Figure 17.1a	Local Path (non-designated)	Walkers and wheelers	Medium	Provides access to the Rochanroy Wood.	673	Path 7a is an access track that connects Path 7 at an at-grade crossing point of the A9 (CP01) to NCR (south). This path has direct access to/from the existing A9.
8 Figure 17.1a	Core Path SPIT/105	Walkers and wheelers Cyclists	High	Provides access to Birnam Wood.	613	The path connects the B867 to path 13 through Birnam Wood at Clune Hill. Path 8 provides a

Path	Designation	Main Users*	Sensitivity	Access to Outdoor Areas**	Baseline Journey Length (m)	Baseline Amenity / Description
						link to Paths 5, 6, 9, 10, 12 and 13 and NCR77 (south).
9 Figure 17.1a	Core Path SPIT/114	Walkers and wheelers	High	Provides access to Birnam Wood and Rochallion Loch.	144	Path 9 provides access from Rochallion path to Birnam Wood path over Court Hill. Provides a connection to Paths 8, 10 and 12.
10 Figure 17.1a	Local Path (non-designated)	Walkers and wheelers	Medium	Provides access to Birnam Wood.	312	Path 10 is an access track through Birnam Wood. Connects into Path 8.
11 Figure 17.1b	Right of Way TP104	Walkers and wheelers	High	Provides access to the River Tay.	405	Path 11 provides access through the village of Birnam to the River Tay.
12 Figure 17.1a	Local Path (non-designated)	Walkers and wheelers	Medium	Provides access to the Birnam Wood.	268	Path 12 is an access track through Birnam Wood. Connects into Path 8.
13 Figure 17.1a	Core Path DUNK/102	Walkers and wheelers	High	Provides access to Birnam Wood and Rochanroy Wood.	1,070	Path 13 is the Birnam Wood northern path, providing links to Path 8, 14 and 16.
14 Figure 17.1a	Local Path (non-designated)	Walkers and wheelers	Medium	Provides access to Birnam Wood and Rochanroy Wood.	256	Path 14 is an access track through Birnam Wood. Connects into Path 13.
15 Figure 17.1a-b	Local Path (non-designated)	Walkers and wheelers	Medium	Provides access to the Dalpowie Plantation and the River Tay.	495	Path 15 is an access track through the Dalpowie Plantation.
16 Figure 17.1a	Local Path (non-designated)	Walkers, wheelers and	Medium	Provides access to the Rochanroy Wood.	455	Path 16 is an access track through Rochanroy Wood. Connects into Paths NCR77 (south) and 13.

Path	Designation	Main Users*	Sensitivity	Access to Outdoor Areas**	Baseline Journey Length (m)	Baseline Amenity / Description
		Cyclists				
17 Figure 17.1a	Local Path (non-designated)	Walkers and wheelers	Medium	Provides access to Rochanroy Wood.	383	Path 17 is an access track through Rochanroy Wood. Connects into Path 18.
18 Figure 17.1a-b	Core Path DUNK/14	Walkers, wheelers andCyclists	High	Provides access to Rochanroy Wood. Part of the 'Birnam Hill Path' walking route.	568	Path 18 forms part of the 'Birnam Hill Path'. Connects into Paths 17 and 20. This path is identified as being part of a Trailforks mountain bike trail.
19 Figure 17.1a-b	Local Path (non-designated)	Walkers, wheelers and Cyclists	Medium	Provides access to Ring Wood.	300	Path 19 is an access track through Ring Wood connecting into Paths NCR77 (south) and 20.
20 Figure 17.1a-b	Core Path DUNK/69	Walkers, wheelers and Cyclists	High	Provides access to Birnam Wood. Part of the 'Birnam Hill Path' walking route.	1835	Path 20 forms part of the Birnam Hill Path. Provides access to the Birnam Quarry car park to the railway underpass south of Craigbeithe. Connects into Paths NCR77 (south),18, 19 and 23. This path is identified as being part of a Trailforks mountain bike trail (Trailfork, 2011).
21 Figure 17.1a-b	Local Path (non-designated)	Walkers and wheelers	Medium	Provides access to the River Tay.	109	Path 21 is an access track connecting into Path 24.
21a Figure 17.1a-b	Local Path (non-designated)	Walkers and wheelers	Medium	Provides access to the River Tay and Dalpowie Plantation.	1,750	Path 21 is an access track connecting into Paths 7, 15 and 24.

Path	Designation	Main Users*	Sensitivity	Access to Outdoor Areas**	Baseline Journey Length (m)	Baseline Amenity / Description
22/NCR77 Figure 17.1a-b	Core Path DUNK/142 National Cycle Route NCR77	Walkers, wheelers and Cyclists	Very High	No direct access to the outdoors provided.	1,400	Path 22/NCR77 is a footpath/cycleway, providing access from Dunkeld & Birnam Station to B867 near Birnam Quarry. Connects into NCR77 (south) and Paths 23 and 28/NCR77. This path has direct access to/from the existing A9.
23 Figure 17.1b	Core Path DUNK/57 Right of Way 32/10	Walkers, Wheelers, Cyclists and Horse Riders	Very High	Provides access Birnam Hill. Part of the 'Birnam Hill Path' walking route.	1,310	Path 23 provides access from Birnam Glen to Perth Road at Sewage Works via Craigbeithe railway underpass and across the A9. Path 23 crosses the existing A9 via an at-grade crossing at CP02. CP02 is also a known crossing point for horse-riders. Connects into Paths 20, 22/NCR77, 24, 25 and 30. This path has direct access to/from the existing A9. This path is identified as being part of a Trailforks mountain bike trail (Trailfork, 2011).
24 Figure 17.1b	Core Path DUNK/10 Right of Way Code TP102	Walkers, wheelers and Cyclists	High	Provides access to the River Tay and the River Braan. Part of the 'Birnam Riverside Path' walking route.	2,910	Path 24 forms part of the Birnam Riverside Path. Provides access from the River Braan at the Bowling Green to Perth Road at Sewage Works via Birnam Oak. Connects into Paths 21, 23, 25, 26, 27, 33, 34/NCR77 and 35.
25 Figure17.1b	Core Path DUNK/103	Walkers, wheelers and Cyclists	Very High	No direct access to the outdoors provided. Part of the 'Birnam Riverside Path' walking route.	1,130	Path 25 is the Birnam Riverside Path. Provides access to the Perth Road footway from Birnam Hotel to the Sewage Works. Connects into

Path	Designation	Main Users*	Sensitivity	Access to Outdoor Areas**	Baseline Journey Length (m)	Baseline Amenity / Description
						Paths 23, 24, 26, 26a, 28/NCR77 and NCR77 (Little Dunkeld).
26 Figure 17.1b	Core Path DUNK/56 Right of Way 32/10	Walkers and wheelers	High	Provides access the River Tay.	473	Path 26 provides access from Birnam Hotel via St Mary's Road to Riverside Path behind St Mary's Towers. Connects into Paths 24, 25 and 27.
26a Figure 17.1b	Local path (non-designated)	Walkers, wheelers and Cyclists	High	Provides access to Inchewan Burn.	232	Path 26a provides access from Perth Road to Birnam Glen along Station Road, and under the A9. Connects into Paths 25 and 28/NCR77.
27 Figure 17.1b	Core Path DUNK/55 Right of Way TP105	Walkers and wheelers	High	Provides access the River Tay. Part of the 'Birnam Riverside Path' walking route.	275	Path 27 forms part of the Birnam Riverside Path. Provides access to Birnam Hotel via Oak Road to Riverside path at Birnam Oak. Connects into Paths 24 and 26.
28/NCR77 Figure 17.1b	Core Path DUNK/11 Right of Way Code TP106 National Cycle Route NCR77	Walkers, Wheelers, Cyclists and Horse Riders	Very High	Provides access to Inchewan Burn. Part of the 'Inchewan Path' and 'Birnam Hill Path' walking routes.	2,066	Path 28/NCR77 forms part of the Birnam Hill Path and Inchewan Path. Provides access from the Perth Road at Birnam Glen to Birnam Hill and King's Seat. Path 28/NCR77 crosses the existing A9 via the Birnam Glen Underbridge at CP03. CP03 is also a known crossing point for horse-riders. Connects into Paths 25, 26a, 29, 30 and NCR77 (Little Dunkeld). This path is identified as being part of a Trailforks mountain bike trail (Trailfork, 2011).

Path	Designation	Main Users*	Sensitivity	Access to Outdoor Areas**	Baseline Journey Length (m)	Baseline Amenity / Description
29 Figure 17.1b	Core Path DUNK/24	Walkers, wheelers and Cyclists	Very High	Provides access to Inchewan Burn. Part of the 'Inchewan Path' walking route.	1,110	Path 29 forms part of the 'Inchewan Path'. Provides access along Inchewan Burn from Birnam Glen to Glen Garr path, via Balhomish. Connects into Path 28/NCR77.
30 Figure 17.1b	Core Path DUNK/115	Walkers, wheelers and Cyclists	High	Provides access to Inchewan Burn. Part of the 'Birnam Hill Path' walking route.	132	Path 30 forms part of the 'Birnam Hill Path' walking route. Provides a link path at Birnam Bank. Connects into Paths 23, 28 / NCR77 and 30.
31 Figure 17.1b	Local Path (non-designated)	Walkers and wheelers	Medium	Provides access to the Tay Forest Park - Ladywell Plantation.	840	Path 31 is an access track through the Tay Forest Park - Ladywell Plantation. This path is identified as being part of a Trailforks mountain bike trail (Trailfork, 2011).
31a Figure 17.1b	Local Path (non-designated)	Walkers and wheelers	Medium	Provides access to Inchewan Burn.	236	Path 31a is an access track to Inchewan Burn which connects into Path 31.
32 Figure 17.1b	Local Path (non-designated)	Walkers and wheelers	Medium	Provides access to the Tay Forest Park - Ladywell Plantation.	755	Path 32 is an access track through the Tay Forest Park - Ladywell Plantation.
33 Figure 17.1b	Core Path DUNK/59	Walkers, wheelers and Cyclists	Very High	Provides access the River Braan. Part of the 'Fiddler's Path' and 'Inver Path' walking routes.	414	Path 33 forms part of the 'Fiddlers Path' and Birnam Riverside Path. Provides access to the River Braan at Bowling Green to A923 at Little Dunkeld. Connects into Path 24 and Path 34/NCR77.

Path	Designation	Main Users*	Sensitivity	Access to Outdoor Areas**	Baseline Journey Length (m)	Baseline Amenity / Description
34/NCR77 Figure 17.1b	Core Path DUNK/144 National Cycle Route NCR77	Walkers, wheelers and Cyclists	Very High	Provides access to the River Tay Part of the 'Birnam Riverside Path' walking route.	755	Path 34/NCR77 is known as the 'Fiddlers' and Loch of the Lowes Paths. Provides access from the A923 footway to Little Dunkeld and then over Dunkeld Bridge to Atholl Park. Connects into Paths 24, 33, 40, 50 and NCR77 (Little Dunkeld).
35 Figure 17.1b-d	Core Path DUNK/23	Walkers, Wheelers, Cyclists and Horse Riders	High	Provides access to the River Tay and the River Braan. Part of the 'Inver Path' and 'Fiddler's Path' walking routes. Provides crossing point of the River Braan.	3,520	Path 35 forms part of the 'Fiddlers' and Inver Paths. Provides access from the River Braan at Bowling Green to Newton Craig car park. Path 35 passes underneath the existing A9 three times. Two of these are via the River Braan Underbridge at the crossing of the River Braan (CP04) and the other is via the River Tay Underbridge to the south of the River Tay (CP05). Both CP04 and CP05 are known crossing points for horse-riders. Connects into Paths 24, 33, 36, 45, 52 and NCR77 (north). This path has direct access to the existing A9. This path is identified as being part of a Trailforks mountain bike trail (Trailfork, 2011).
36 Figure 17.1b-c	Core Path DUNK/63	Walkers and wheelers	Very High	Provides access to the River Braan.	523	Path 36 forms part of the Inver Path. Provides access to the Inver road footway east of Inver Bridge. Connects into Paths 35 and 41. This path is being used as a diversion for the Braan footbridge which has been washed away and not yet reinstated.

Path	Designation	Main Users*	Sensitivity	Access to Outdoor Areas**	Baseline Journey Length (m)	Baseline Amenity / Description
37 Figure 17.1b-c	Core Path DUNK/60	Walkers, wheelers and Cyclists	High	Provides access to Tay Forest Park - Ladywell Plantation. Part of the 'Braan Path' walking route.	210	Path 37 forms part of the Braan Path. Provides access to the Inver car park to Ladywell Plantation, crossing A822. This path is identified as being part of a Trailforks mountain bike trail (Trailfork, 2011).
38/NCR77 Figure 17.1b-c	Core Path DUNK/145 National Cycle Route NCR77	Walkers, wheelers and Cyclists	Very High	Provides access to the River Tay. Part of the 'Fiddler's Path' walking route.	2,690	Path 38/NCR77 forms part of the Fiddlers Path. Provides access to the A9 footway/cycleway overbridge at Newton Craig. Crosses underneath the existing A9 at CP06. Connects into Paths 40, 43/NCR77, 48/NCR77 and Path 53. This path is identified as being part of a Trailforks mountain bike trail (Trailfork, 2011).
39 Figure 17.1b-c	Core Path DUNK/137		High	Provides access to the River Braan. Part of the 'Inver Path' walking route.	595	Path 39 forms part of the Inver Path. Provides access from Inver Park to River Braan footbridge beside A9 bridge. Connects into Paths 35 and 41. This path is identified as being part of a Trailforks mountain bike trail (Trailfork, 2011).
40 Figure 17.1b-c	Core Path DUNK/25	Walkers, wheelers and Cyclists	Very High	Provides access to the River Tay. Part of the 'Fiddler's Path' walking route.	1,300	Path 40 forms part of the Bishops and Fiddlers Paths. Provides access from the A923 at car park via Bishop's Hill to Hilton Hotel driveway. Connects into Paths 34/NCR77, 38/NCR77 and 43/NCR77.
41	Core Path DUNK/64	Walkers, wheelers,	Very High	Provides access to the River Braan and The Hermitage. Part	1,280	Path 41 forms part of the 'Braan Path' and 'Inver Path'. Provides access to the Inver Bridge

Path	Designation	Main Users*	Sensitivity	Access to Outdoor Areas**	Baseline Journey Length (m)	Baseline Amenity / Description
Figure 17.1c-d		Cyclists and Horse Riders		of the 'Inver Path' and 'Braan Path' walking route.		via Hermitage car park and Ossian's Hall to Old Military Road above The Hermitage. Path 41 is also known to be used by horse-riders. Connects into Paths 36, 39 and 44. This path is identified as being part of a Trailforks mountain bike trail (Trailfork, 2011).
42 Figure 17.1c	Core Path DUNK/22		High	Provides access to the River Braan and The Hermitage. Part of the 'Braan Path' walking route.	2,110	Path 42 forms part of the Braan Path. Provides access from Inver car park via Hermitage Bridge to Craigvinean Cottage. This path is identified as being part of a Trailforks mountain bike trail (Trailfork, 2011).
43/NCR77 Figure 17.1c	Core Path DUNK/70 National Cycle Route NCR77		Very High	Provides access to the River Tay. Part of the 'Bishops Path' walking route.	1,480	Path 43/NCR77 forms part of the 'Bishops Path'. Provides access to the Hilton Hotel driveway from A923 to 250m east of hotel. Connects into Paths 38/NCR77 and 40.
44 Figure 17.1c	Core Path DUNK/15 Right of Way TP94		Very High	Provides access to the River Braan and The Hermitage. Part of the 'Inver Path' walking route.	1,050	Path 44 forms part of the 'Braan Path'. Provides access from The Hermitage car park on route of Old Military Road to Rumbling Bridge. Connects into Paths 41 and 45. This path is identified as being part of a Trailforks mountain bike trail (Trailfork, 2011).
RCR83 Figure 17.1d	Regional Cycle Route RCR83		High	Provides access to Atholl Woods.		Path RCR83 is an on-road route that begins north of Dunkeld and runs parallel alongside the existing A9. Connects into Path 49.

Path	Designation	Main Users*	Sensitivity	Access to Outdoor Areas**	Baseline Journey Length (m)	Baseline Amenity / Description
45 Figure 17.1c-d	Core Path DUNK/65	Walkers, wheelers and Cyclists	Very High	Provides access to Tay Forest Park – Craigvinean Plantation. Part of the 'Inver Path' walking route.	2,572	Path 45 forms part of the Inver Path. Provides access to the Old Military Road above The Hermitage to Newton Craig car park. Connects into Path 35, 38/NCR77, 44, 46, 47, 52 and NCR77 (north). This path is identified as being part of a Trailforks mountain bike trail (Trailfork, 2011).
46 Figure 17.1c-d	Core Path DUNK/130		High	Provides access to the Tay Forest Park - Craigvinean Plantation.	9,060	Path 46 is the Craigvinean Forest track, Newton Craig to Dalguise. Connects into Path 45. This path is identified as being part of a Trailforks mountain bike trail (Trailfork, 2011).
47 Figure 17.1c	Local Path (non-designated)		Low	Provides access to the Tay Forest Park - Craigvinean Plantation.	735	Path 47 is a forest track that connects into Path 45. This path has direct access to/from the existing A9. This path is identified as being part of a Trailforks mountain bike trail (Trailfork, 2011).
48/NCR77 Figure 17.1c-d	Core Path DUNK/100 National Cycle Route NCR77		Very High	Provides access to the River Tay. Part of the 'Fiddler's Path' walking route.	1.080	Path 48/NCR77 forms part of the Bishops & Fiddlers Paths. Provides access from Bishop's Hill to the north of the River Tay. Provides links to Paths 35, 38 / NCR77, 53, and NCR77 (north). This path has direct access to/from the existing A9.
49 Figure 17.1c-d	Core Path DUNK/26	Walkers, wheelers and	High	Provides access to Atholl Wood.	5,320	Path 49 forms part of the Atholl Wood Path. Connects into Paths 51 and RCR83. This path is

Path	Designation	Main Users*	Sensitivity	Access to Outdoor Areas**	Baseline Journey Length (m)	Baseline Amenity / Description
		Cyclists				identified as being part of a Trailforks mountain bike trail (Trailfork, 2011).
50 Figure 17.1b	Right of Way TP101		High	Provides access to the River Tay.	728	Path 50 provides access along the River Tay to Path 34/NCR77.
51 Figure 17.1c-d	Local path (un-designated)	Walkers, wheelers and Cyclists	Medium	Provides access to Atholl Wood.	1,872	Path 51 is part of the Atholl Wood path network. Provides a link to Path 49.
52 Figure 17.1c-d	Local path (un-designated)	Walkers and wheelers	Medium	Provides access to Tay Forest Park – Craigvinean Plantation.	1,450	Path 52 provides access to the Tay Forest Park-Craigvinean Plantations and provides a link to Path 45.
53 Figure 17.1d	Local Path (non-designated)	Walkers, wheelers and Cyclists	Medium	Provides access to the River Tay.	903	Path 53 provides direct access to the River Tay from the existing A9. Connects to Path 38/NCR77 and 48/NCR77.

* Although predominant users of the paths are identified, it should be noted that access is not limited to a single user group.
** Refer to Chapter 16 (Population – Land Use) and Figure 16.1 for further details on community assets.

Public Transport

17.3.15 As noted in Chapter 16 (Population – Land Use), local bus services in the study area are operated by Elizabeth Yule (Monday to Saturday) and Stagecoach Perth (Sunday). Long distance bus services are operated by Citylink and National Express. Table 17.9a provides information on the itinerary of these services (correct as of May 2025). Perth Road, which some bus routes follow, is adjacent to the proposed scheme, located to the north of the south-bound carriageway, and as shown on Figure 17.1.

Table 17.9a: Existing bus services

Service No.	Operator	Origin	Destination	Routes	Frequency
23 / 27 / 34	Stagecoach	Perth	Aberfeldy	A9	Hourly Service (Mon-Sun)
60	Stagecoach	Blairgowrie	Dunkeld	A9	Four services daily (Mon-Fri)
897	Doherty's Midland Coaches	Perth	Aberfeldy	A9	Two services daily (Mon-Fri) during operational school months
M90	Megabus / Citylink	Edinburgh or Perth	Inverness	Perth Road	Daily service in each direction
M91	Megabus / Citylink	Edinburgh, Perth or Glasgow	Inverness	Perth Road	Daily service in each direction

17.3.16 There are a number of bus stops located in the study area and these include:

- two serving both directions at Inchewan on Perth Road;
- two serving both directions at Laiken on Perth Road;
- two serving both directions at Birnam Hotel on Perth Road;
- two serving both directions at the Royal School of Dunkeld on Perth Road;
- northbound on the existing A9 at CH.5100 at Rose Cottage;
- southbound on the existing A9 at CH.4900 at Rose Cottage;
- two serving both directions on the A923 at Bruce Gardens to the south of Dunkeld Bridge; and
- one at North Car Park on Atholl Street/A923 (outwith the study area, however, it has connectivity with facilities within the study area).

17.3.17 The only train station located within the study area is Dunkeld & Birnam Station. The station is managed by ScotRail, with ScotRail running most of the services using this station; and LNER and the Caledonian Sleeper providing other services. Table 17.9b provides information on the itinerary of these services, correct as of February 2025 (ScotRail, 2024; LNER, 2024; Caledonian Sleeper, 2024).

Table 17.9b: Existing train services (Dunkeld & Birnam Station)

Operator	Origin	Destination	Frequency
ScotRail	Inverness	Glasgow / Edinburgh	10 trains daily during Monday to Saturday 5 trains on Sunday
LNER	Inverness	London King's Cross	One service weekly (Sun)
Caledonian Sleeper	London Euston	Inverness	One service daily (Mon – Sun)

17.3.18 WCH paths that provide access to Dunkeld & Birnam Station include path 22/NCR77, 26a and 28. Impacts on Dunkeld & Birnam Station in terms of changes in access and changes in severance and accessibility are assessed in Chapter 16 (Population - Land Use).

17.4 Potential Impacts and Effects

Introduction

17.4.1 Potential impacts of the proposed scheme on WCH are described in this section. These are impacts that could occur in the absence of essential mitigation as set out in Section 17.5 (Mitigation). However, it should be noted that the proposed scheme assessed within this chapter is the result of an iterative design process which incorporated provision for maintaining and enhancing WCH journeys and takes into account the objectives for access provision set out in the A9 Dualling WCH Access Strategy (Transport Scotland, 2016) [Note that Walkers, cyclists and horse-riders (WCH) were previously referred to as Non-Motorised Users (NMU) under superseded DMRB Volume 11 'Pedestrians, Cyclists, Equestrians and Community Effects']. As such, the proposed scheme already includes embedded mitigation including footpaths/cycleways (shown on Figure 17.2) and landscape planting (shown on Figure 10.6). Further details of embedded mitigation are provided in Section 17.5 (Mitigation) and Chapter 5 (Iterative Design Development).

17.4.2 The potential impacts identified in this section are therefore those that remain following the incorporation of embedded mitigation and for which specific mitigation measures to further reduce impacts (such as signage) are identified in Section 17.5 (Mitigation). Potential impacts on amenity value are based on the worst-case scenario, i.e. winter year of the year of opening of the proposed scheme.

WCH Routes

17.4.3 This section describes the potential impacts on WCH identified as being significant according to the criteria set out in Section 17.3 (Methodology). Full details of potential impacts on WCH are described in Appendix A17.1 (Impact Assessment for WCH Routes and Access to Outdoor Areas).

Footpaths/Cycleways and Other Routes

Construction

17.4.4 During construction of the proposed scheme, disruption of WCH using paths within the immediate vicinity is anticipated due to temporary severance and diversions. Most of the paths identified as being affected by construction activities are those that intercept the proposed scheme or the roads connecting to the proposed scheme (refer to Table 17.8), as follows:

- Local Paths 7, 7a, 19, 26a; and
- Core Paths 22/NCR77, NCR77 (north), 23, 24, 25, 33, 35, 36, 39, 48/NCR77.

17.4.5 During the construction period, WCH have the potential to be disrupted by:

- temporary diversions of paths and cycleways which may increase journey time;
- removal of existing at-grade crossings;
- creation of new paths and cycleways;
- construction traffic on local roads which may create busier crossing points;
- location of site compounds on recreation areas which would reduce accessibility; and
- impacts on the amenity value of the path and cycleway network due to noise, dust, and also visual intrusion of the works which could lead to temporary severance where construction works disrupt or deter WCH from using paths and residents from accessing local facilities.

17.4.6 During construction, continuity of NCR77 will be maintained, though diversions will be in place which are likely to impact on journey length and amenity.

17.4.7 The potential impacts listed in paragraph 17.4.5 are described in general terms as they would depend on the detail and phasing of activities undertaken by the contractor which are not available at this time. The temporary disturbance impacts on WCH during construction are of **Large** to **Very Large** significance. However, it should be noted that whilst these potential impacts on WCH are predicted to be significant, they would not be continuous for the full 37 months of disruption. Therefore, the anticipated effects would not necessarily be experienced to the same degree by all users.

Operation

17.4.8 The needs of WCH have been considered during the development of the proposed scheme with various features incorporated into the design to maintain and improve WCH routes as described in paragraph 17.5.6 and Table 17.14.

17.4.9 Potential significant impacts on journey length and amenity value are detailed in Table 17.10 and Table 17.11 and summarised in Table 17.12. Journeys used within the journey lengths assessment are a series of selected representative routes frequently used by WCH. They are made up of different paths, as defined in Table 17.8. Full assessment results for journey

lengths and amenity value are provided in Appendix 17.1 (Impact Assessment for WCH Routes and Access to Outdoor Areas) and are shown on Figure 17.2.

17.4.10 Potential impacts on WCH with regards to changes in visual, air quality, and noise as a result of the proposed scheme are reported in Table 17.11. This assessment is set out in terms of magnitude in line with the assessment methodology in Chapter 11 (Visual), Chapter 8 (Air Quality), and Chapter 15 (Noise and Vibration).

Table 17.10: Potential significant impacts on journey length during operation

Journeys with an asterisk (*) represent an alternative baseline journey, established via consultation or current diversion routes that are in place at the time of this assessment

Journey Length Assessment (JLA) ref.	WCH path	Path type	New Crossing Point	Potential impacts	Key impact on WCH	Baseline journey length (m)	Potential new journey length (m)	Potential change	Sensitivity	Potential Impact	
										Magnitude	Significance
4	23 Figure 17.1b	Core Path DUNK/57; PRoW TP102	CP02	Increase in journey length	This path would be severed by the proposed scheme and access across the A9 at the existing at-grade crossing point (current CP02) would be stopped. Assuming east to west crossing, WCH would be redirected via the new underpass (new CP02) then along the proposed slipway up to the mainline and onto DUNK/57 again.	210	767	557	Very High	Major	**Very Large**
7	33 Figure 17.1b	Core Paths DUNK/23, DUNK/59; PRoW 32/10	CP05, CP06, CP07	Increase in journey length	Redirects any WCH that would be travelling from the south of the A9 (A822) to Little Dunkeld via a proposed footway along the southern arm of the roundabout, looping north along DUNK/23 and crossing the A9 via the underpass at CP07. The route continues along DUNK/59 to A923 towards Little Dunkeld.	632	894	262	Very High	Moderate	**Very Large**
8a	33, 39 Figure 17.1b-c	Core Paths DUNK/59, DUNK/23, DUNK/137; PRoW 32/10	CP07	Increase in journey length	Redirects any WCH travelling from Little Dunkeld to Inver via CP07 then looping east to north to the proposed footway running alongside the northbound A9 carriageway. This footway then cuts southwards to join DUNK/64.	1130	1560	430	Very High	Moderate	**Very Large**
8a*	33, 36 Figure 17.1b-c	Core Path DUNK/59, DUNK/23, DUNK/63, DUNK/64; PRoW 32/10	CP07	Increase in journey length	Redirects any WCH travelling from Little Dunkeld to Inver via CP07 then looping east to north to the proposed footway running alongside the northbound A9 carriageway. This footway then cuts southwards to join DUNK/64.	1180	1560	380	Very High	Moderate	**Very Large**
9a	33, 39, 35 Figure 17.1b-d	Core Paths DUNK/59, DUNK/23 PRoW 32/10	CP07, CP08	Increase in journey length	Redirects any WCH travelling along the southern banks of the River Tay from Little Dunkeld to the west. DUNK/59 leads to CP07 where WCH would cross under the A9. WCH would then be redirected east along a proposed footpath that leads to the proposed footway running alongside the northbound A9 carriageway. This footway then cuts southwards to join DUNK/137. This leads to CP08 and rejoins DUNK/23. DUNK/23 will be realigned and extended slightly here to account for the compensatory flood storage.	1074	2201	1127	Very High	Major	**Very Large**

Journey Length Assessment (JLA) ref.	WCH path	Path type	New Crossing Point	Potential impacts	Key impact on WCH	Baseline journey length (m)	Potential new journey length (m)	Potential change	Sensitivity	Potential Impact	
										Magnitude	Significance
9a*	33, 36, 35 Figure 17.1b-d	Core Path DUNK/59, DUNK/23, DUNK/63, DUNK/64, DUNK/137; PRoW 32/10	CP07, CP08	Decrease in journey length	Redirects any WCH travelling along the southern banks of the River Tay from Little Dunkeld to the west. DUNK/59 leads to CP07 where WCH would cross under the A9. WCH would then be redirected east along a proposed footpath that leads to the proposed footway running alongside the northbound A9 carriageway. This footway then cuts southwards to join DUNK/137. This leads to CP08 and rejoins DUNK/23. DUNK/23 will be realigned and extended slightly here to account for the compensatory flood storage.	2309	2201	-108	Very High	Minor	**Large**
9b	33, 39, 35 Figure 17.1b-d	Core Paths DUNK/59, DUNK/23 PRoW 32/10	CP07, CP08	Increase in journey length	Redirects any WCH travelling along the southern banks of the River Tay from Little Dunkeld to the west. DUNK/59 leads to CP07 where WCH would cross under the A9. This leads to DUNK/63 and the existing diversion in place due to the footbridge being washed away. This footpath then crosses the Braan to join DUNK/64, cuts north along the proposed footpath that replaces DUNK/137 that leads to CP08 and rejoins DUNK/23. DUNK/23 will be realigned and extended slightly here to account for the compensatory flood storage.	1074	2311	1237	Very High	Major	**Very Large**
10	48/NCR77 Figure 17.1c-d	NCR77; Core Path DUNK/100	CP09	Increase in journey length	WCH will be redirected from B898 south along a proposed footpath which then loops north onto the southbound carriageway, at approximately ch.7260. A proposed footway will then replace DUNK/100 and NCR77 to cross the River Tay which will cut to the west at ch.7790 to DUNK/145.	1040	1930	890	Very High	Major	**Very Large**

* Baseline assumes the existing diversion route over the River Braan as the footbridge is no longer in place at the time of writing. For the journeys that do not have an asterisk, baseline assumes the footbridge has been reinstated, as per the Core Paths Pap (Perth and Kinross, 2017a).

Table 17.11: Potential significant impacts on amenity value (without mitigation) during operation

WCH path	Path type	Crossing point ref.	Potential impact on amenity and safety resulting from proposed scheme	Potential Change			Significance (amenity value)
				Visual	Air Quality	Noise	
NCR77 (south) Figure 17.1a	National Cycle Route NCR77	N/A	Due to the provision of a grade separated junction at Murthly, there would be an increase in traffic along the B867 between its intersection with the A9 and the grade separated junction. There would also be adverse impacts on visual amenity on approach to the junction due to the increased visibility of the structure.	**Large*** (**Moderate****)	Not significant	Minor	**Moderate**
NCR77 (Little Dunkeld) Figure 17.1b	National Cycle Route NCR77	N/A	Due to the closer proximity and subsequent visual impact from the path of the proposed route at the new roundabout, there is expected to be a decrease in amenity value for WCH using this route.	**Large*** (**Moderate****)	Not significant	Minor	**Moderate**
NCR77 (north) Figure 17.1d	National Cycle Route NCR77	N/A	Due to the closer proximity and subsequent visual impact from the route of the proposed route at Dalguise Junction, there is expected to be a decrease in amenity value for WCH using this route.	**Large*** (**Moderate****)	Not significant	Minor	**Moderate**
7 Figure 17.1a	Local Path (non-designated)	CP01	Due to the provision of a new underpass, safety would be improved for WCH crossing the carriageway at this location. There would be a decrease in visual amenity due to the greater visibility of the proposed route options from Path 7. Overall, an increase in amenity value is expected for WCH using this path due to the improved safety of the grade separated crossing.	**Large*** (Slight**)	Not significant	Minor	Slight to **Moderate**
7a Figure 17.1a	Local Path (non-designated)	CP01	Due to the provision of a new underpass, safety would be improved for WCH crossing the carriageway at this location. This path would be used less due to the new underpass, with a decrease in visual amenity due to the greater visibility of the proposed development. Overall, an increase in amenity value is expected for WCH using this path due to the improved safety of the grade separated crossing.	**Large*** (Slight**)	Not significant	Minor	Slight to **Moderate**
19 Figure 17.1a-b	Local Path (non-designated)	N/A	Due to the closer proximity of the path to the proposed route options, there is expected to be a decrease in amenity value for WCH using this route.	**Large*** (Slight**)	Not significant	**Major**	**Moderate** to **Substantial**
22/NCR77 Figure 17.1a-b	Core Path DUNK/142 National Cycle Route NCR77	CP04	Due to the closer proximity of the path to the proposed Birnam Junction and subsequent visual potential impact, there is expected to be a decrease in the amenity value for WCH using this path. A decrease in amenity is also anticipated due to the change from being a segregated off road WCH route to along Perth Road.	**Large*** (**Moderate****)	Not significant	**Major**	**Moderate** to **Substantial**
23 Figure 17.1b	Core Path DUNK/57 Right of Way 32/10	CP02	Removal of the at-grade crossing point at this location would result in an improvement in safety for WCH as they would be redirected to the proposed underbridge as part of Birnam Junction. There would be a decrease in visual amenity due to the greater visibility of the proposed route options from Path 23. Overall an increase in amenity value is expected for WCH using this path due to the improved safety of the grade separated crossing.	**Moderate*** (Slight**)	Not significant	Minor	Slight to **Moderate**
24 Figure 17.1b	Core Path DUNK/10 Right of Way Code TP102	CP03	Due to the closer proximity of the path and subsequent potential visual impact at the proposed junctions at Birnam and Dunkeld, there is expected to be a decrease in the amenity value for WCH using this route.	**Moderate*** (Slight**)	Not significant	Minor	Slight to **Moderate**

WCH path	Path type	Crossing point ref.	Potential impact on amenity and safety resulting from proposed scheme	Potential Change			Significance (amenity value)
				Visual	Air Quality	Noise	
25 Figure 17.1b	Core Path DUNK/103	CP03	Due to the proposed Birnam Junction and its subsequent potential visual impact, and an increase in traffic flow along Perth Road (from approximately 1,500 AADT 18hr in 2015, to approximately 2,320 AADT 18hr in 2026) there is expected to be a decrease in the amenity value for WCH using this route.	**Moderate*** (Slight**)	Not significant	Minor	Slight to **Moderate**
26a Figure 17.1b	Local path (non-designated)	CP04	Due to the closer proximity of the path and the potential visual impact from the new earthworks, a decrease in amenity value is anticipated for WCH using Path 26a.	**Large*** (Slight**)	Not significant	Minor	Slight to **Moderate**
28/NCR77 Figure 17.1b	Core Path DUNK/11 Right of Way Code TP106 National Cycle Route NCR77	N/A	Due to the wider bridge across the Birnam Glen for the proposed A9 carriageway, a decrease in amenity is anticipated for WCH using Path 28/NCR77.	**Moderate*** (Slight**)	Not significant	Minor	Slight to **Moderate**
33 Figure 17.1b	Core Path DUNK/59	CP06, CP07	There would be a decrease in the amenity value of this path due to its closer proximity to the proposed roundabout at Dunkeld.	**Large*** (Slight**)	Not significant	Negligible	Slight to **Moderate**
34/NCR77 Figure 17.1b	Core Path DUNK/144 National Cycle Route NCR77	N/A	Due to the closer proximity and subsequent visual impact from this path to the proposed route, there is expected to be a decrease in amenity value for WCH using this route.	**Moderate*** (Slight**)	Not significant	Negligible	Slight to **Moderate**
35 Figure 17.1b-d	Core Path DUNK/23	N/A	Due to the closer proximity of the path to the proposed route options and subsequent visual impact from earthworks, there is expected to be a decrease in the amenity value for WCH using this path.	**Large*** (**Moderate****)	Not significant	**Moderate**	**Moderate**
36 Figure 17.1b-c	Core Path DUNK/63	N/A	Due to the closer proximity and subsequent visual impact from this path to the proposed route, there is expected to be a decrease in amenity value for WCH using this route.	**Moderate*** (Slight**)	Not significant	Negligible	Slight to **Moderate**
38/NCR77 Figure 17.1b-c	Core Path DUNK/145 National Cycle Route NCR77	N/A	Due to the closer proximity and subsequent visual impact from this path to the proposed route, there is expected to be a decrease in amenity value for WCH using this route.	**Moderate*** (Slight**)	Not significant	Minor	Slight to **Moderate**
39 Figure 17.1b-c	Core Path DUNK/137	CP07	Due to the closer proximity of the path to the proposed route options and subsequent visual impact from earthworks, there is expected to be a decrease in the amenity value for WCH using this path.	**Large*** (**Moderate****)	Not significant	**Major**	**Moderate** to **Substantial**
41 Figure 17.1c	Core Path DUNK/64	N/A	Due to the closer proximity of the path to the proposed route options there is expected to be a decrease in amenity value for WCH using this path.	**Moderate*** (Slight**)	Not significant	Negligible	Slight to **Moderate**

WCH path	Path type	Crossing point ref.	Potential impact on amenity and safety resulting from proposed scheme	Potential Change			Significance (amenity value)
				Visual	Air Quality	Noise	
45 Figure 17.1c-d	Core Path DUNK/65	N/A	Due to the closer proximity of the path to the revised B898 alignment associated with the proposed Dalguise Junction, there is expected to be a decrease in the amenity value of WCH using this path.	Slight	Not significant	**Moderate**	Slight to **Moderate**
47 Figure 17.1c	Local Path (non-designated)	N/A	Due to the closer proximity of the path to the proposed route options and subsequent visual impact, there is expected to be a decrease in the amenity value for WCH using this path.	**Moderate*** (Slight**)	Not significant	**Major**	**Moderate**
48/NCR77 Figure 17.1c-d	Core Path DUNK/100 National Cycle Route NCR77	CP09	The existing path would be truncated by the proposed scheme. A replacement path over the Tay Crossing on the southbound carriageway will reroute WCH along the eastern side of Jubilee Bridge. This would improve the safety for WCH as the new path has improved paved provision and greater separation distance to the carriageway.	**Large*** (**Moderate****)	Not significant	**Moderate**	**Moderate**
53 Figure 17.1d	Local Path (non-designated)	N/A	Due to its closer proximity to the proposed route options, there is expected to be a decrease in the amenity value for WCH using this path.	**Large*** (Slight**)	Not significant	**Moderate**	**Moderate**

* The visual impact is based on the worst-case scenario, i.e. winter year of opening. Following embedded mitigation such as planting, these impacts are expected to decrease by summer 15yrs.
** Potential impact in summer 15yrs after opening (Chapter 11: Visual)

Note: Whilst DMRB guidance states that only one significance value be provided, significance can vary along a path. Where variance has been assessed along paths within the study area, significance has been given a range (such as 'Slight to Moderate').

Table 17.12: Summary of significant potential impacts on WCH paths (without mitigation) during operation

WCH path	Path type	Crossing point	Significance of potential impact		
			Journey length	Amenity value	Overall
NCR77 (south)	National Cycle Route NCR77	N/A	No change	**Moderate**	Slight to **Moderate**
NCR77 (Little Dunkeld)	National Cycle Route NCR77	CP04	**Moderate**	**Moderate**	**Moderate**
NCR77 (north)	National Cycle Route NCR77	N/A	**Moderate**	**Moderate**	**Moderate**
Path 7	Local Path (non-designated)	CP01	Slight	Slight to **Moderate**	Slight to **Moderate**
Path 7a	Local Path (non-designated)	CP01	Slight	Slight to **Moderate**	Slight to **Moderate**
Path 19	Local Path (non-designated)	N/A	Slight	**Moderate** to **Substantial**	**Moderate**
Path 22/ NCR77	Core Path DUNK/142 National Cycle Route NCR77	N/A	Slight	**Moderate** to **Substantial**	**Moderate**
Path 23	Core Path DUNK/57 Right of Way 32/10	CP02	**Very Large**	Slight to **Moderate**	**Large**
Path 24	Core Path DUNK/10 Right of Way Code TP102	N/A	Slight	Slight to **Moderate**	Slight to **Moderate**
Path 25	Core Path DUNK/103	CP03	Slight	Slight to **Moderate**	Slight to **Moderate**
Path 26a	Local path (non-designated)	N/A	Slight	Slight to **Moderate**	Slight to **Moderate**
Path 28/ NCR77	Core Path DUNK/11 Right of Way Code TP106 National Cycle Route NCR77	CP04	No change	Slight to **Moderate**	Slight to **Moderate**

WCH path	Path type	Crossing point	Significance of potential impact		
			Journey length	Amenity value	Overall
Path 33	Core Path DUNK/59	N/A	**Very Large**	Slight to **Moderate**	**Large**
Path 34/ NCR77	Core Path DUNK/144 National Cycle Route NCR77	N/A	No change	Slight to **Moderate**	Slight to **Moderate**
Path 35	Core Path DUNK/23	CP07, CP08, CP09	**Very Large**	**Moderate**	**Large** to **Very Large**
Path 36	Core Path DUNK/63	N/A	**Very Large**	Slight to **Moderate**	**Large**
Path 38/NCR77	Core Path DUNK/145 National Cycle Route NCR77	N/A	No change	Slight to **Moderate**	Slight to **Moderate**
Path 39	Core Path DUNK/137	N/A	**Very Large**	**Moderate** to **Substantial**	**Large** to **Very Large**
Path 41	Core Path DUNK/64	N/A	No change	Slight to **Moderate**	Slight to **Moderate**
Path 45	Core Path DUNK/65	N/A	No change	Slight to **Moderate**	Slight to **Moderate**
Path 47	Local Path (non-designated)	N/A	No change	**Moderate**	**Moderate**
Path 48/NCR77	Core Path DUNK/100 National Cycle Route NCR77	N/A	**Very Large**	**Moderate**	**Large** to **Very Large**
Path 53	Local Path (non-designated)	N/A	No change	**Moderate**	**Moderate**

17.4.11 Significant impacts are identified on WCH paths during operation, as a result of changes to journey length and change in amenity. The significance of these impacts varies from 17 **Moderate** effects, 3 **Large** effects and 3 **Very Large** effects on a total of 23 paths out of 61 total paths within the proposed scheme extents.

Access to Outdoor Areas

17.4.12 Potential significant construction impacts identified for paths are described in paragraphs 17.4.4 to 17.4.7. The assessment of operational impacts on access to the outdoors is based on the findings of the impact assessment on paths as outlined in Tables 17.10, 17.11 and 17.12.

Construction

17.4.13 In the absence of mitigation during construction, potential significant impacts (Moderate or above) are identified for the following outdoor areas during the construction period. However, as set out in paragraph 17.4.7, these potential impacts are described in general terms as they will depend on detail and timing of activities undertaken by the Contractor which are not available at this time:

- Birnam Hill: Users of Path 23 are expected to experience disruption through temporary severance and realignment of the path.
- Birnam Wood: Users of NCR77 (south) are expected to experience disruption through temporary severance and realignment of the paths.
- Dalpowie Plantation: Users of Path 7 are expected to experience disruption through temporary severance and realignment of the paths.
- Inchewan Burn: Users of Path 26a are expected to experience disruption through temporary severance and realignment of the paths.
- Ring Wood: Users of NCR77 (south) and Path 19 are expected to experience disruption through temporary severance and realignment of the paths.
- River Braan: Users of Paths 24, 33, 25, 26 and 37 are expected to experience disruption through temporary severance and realignment of the paths.
- River Tay: Users of Paths 24, 35 and 48/NCR77 are expected to experience disruption through temporary severance and realignment of the paths.
- Rochanroy Wood: Users of Path 7a are expected to experience disruption through temporary severance and realignment of the paths.
- Rohallion Loch: Users of NCR77 (south) are expected to experience disruption through temporary severance and realignment of the paths.
- Tay Forest Park – Craigvinean Plantation: Users of NCR77 (south) are expected to experience disruption through temporary severance and realignment of the paths.

17.4.14 However, it should be noted that whilst the construction impacts to WCH are predicted to be significant, they would not be continuous for the full 37 months of disruption. Therefore, these effects would not necessarily be experienced to the same degree by all users.

Operation

17.4.15 Table A17.1-4 in Appendix 17.1 details potential impacts on outdoor access during operation. Outdoor access that is anticipated to have potential significant adverse impacts (Moderate or above) during operation are outlined in Table 17.13. Full assessment results for outdoor

access are provided in Appendix 17.1 (Impact Assessment for WCH Routes and Access to Outdoor Areas).

Table 17.13: Summary of significant potential impacts on outdoor access (without mitigation) during operation

Facility	Outdoor Access Area	Potential Impact (without mitigation)	Significance of potential impact
Area facilities			
Hill	Birnam Hill	**Large** potential impacts are anticipated for WCH using Path 23. Slight to **Moderate** potential impacts are anticipated for WCH using Path 28/NCR77. Slight potential impacts are anticipated for WCH using Paths 18 and 20. Overall, **Moderate** to **Large** potential impacts are anticipated for WCH accessing Birnam Hill.	**Moderate** to **Large**
Woodland	Inver Wood	**Moderate** potential impacts are anticipated for WCH using Path 47. Slight to **Moderate** potential impacts are anticipated for WCH using Path 45. Negligible potential impacts are anticipated for WCH using Path 46. Overall, Slight to **Moderate** potential impacts are anticipated for WCH accessing Inver Wood.	Slight to **Moderate**
Woodland	The Hermitage	**Moderate** potential impacts are anticipated for WCH using Path 41. Slight potential impacts are anticipated for WCH using Paths 42 and 44. Overall, **Moderate** potential impacts are anticipated for WCH accessing The Hermitage.	**Moderate**
Woodland	Ring Wood	**Moderate** potential impacts are anticipated for WCH using Path 19. Slight to **Moderate** potential impacts are anticipated for WCH using NCR77 (south). Overall, **Moderate** potential impacts are anticipated for WCH accessing Ring Wood.	**Moderate**
River	River Braan	**Large** to **Very Large** potential impacts are anticipated for WCH using Paths 35 and 39. **Large**	**Moderate** to **Large**

Facility	Outdoor Access Area	Potential Impact (without mitigation)	Significance of potential impact
		potential impacts are anticipated for WCH using Paths 33 and 36. **Moderate** potential impacts are anticipated for WCH using Path 41. Slight to **Moderate** potential impacts are anticipated for WCH using Path 24. Slight potential impacts are anticipated for WCH using Path 42, 43/NCR77, and 44. Overall, **Moderate** to **Large** potential impacts are anticipated for WCH accessing the River Braan.	
River	River Tay	**Large** to **Very Large** potential impacts are anticipated for WCH using Path 35. **Moderate** potential impacts are anticipated for WCH using Path 53. Slight to **Moderate** potential impacts are anticipated for WCH using Paths 24, 34/NCR77, 38/NCR77 and 48/NCR77. Slight potential impacts are anticipated for WCH using Paths 4, 11, 15, 21, 21a, 26, 27 and 50. Negligible potential impacts are anticipated for WCH using Path 40. Overall, **Moderate** to **Large** potential impacts are anticipated for WCH accessing the River Tay.	**Moderate** to **Large**
Loch	Rohallion Loch	Slight to **Moderate** potential impacts are anticipated for WCH using NCR77 (south). Slight potential impacts are anticipated for WCH using Path 9. Overall, Slight to **Moderate** potential impacts are anticipated for WCH accessing Rohallion Loch.	Slight to **Moderate**
Woodland	Tay Forest Park – Craigvinean Plantation	**Moderate** potential impacts are anticipated for WCH using Path 47. Slight to **Moderate** potential impacts are anticipated for WCH using NCR77 (south) and Path 45. Negligible potential impacts are anticipated for WCH using Paths 46 and 52. Overall, Slight to **Moderate** potential impacts are anticipated for WCH accessing	Slight to **Moderate**

Facility	Outdoor Access Area	Potential Impact (without mitigation)	Significance of potential impact
		Tay Forest Park – Craigvinean Plantation.	
Linear facilities			
National Cycle Route	NCR77	**Moderate** potential impacts are anticipated for WCH using NCN77 (Little Dunkeld) and NCN77 (north). Slight to **Moderate** potential impacts are anticipated for WCH using NCN77 (south). Overall, **Moderate** potential impacts are anticipated for WCH using NCR77.	**Moderate**

17.4.16 Significant effects are anticipated on access to Outdoor Areas during operation, as a result of change to journey length and change in amenity of the paths used to access these facilities. The significance of these effects varies from 5 **Moderate** effects and 3 **Large** effects on a total of 8 paths out of 16 total paths within the proposed scheme extents. Additionally, the NCR77 will experience a **Moderate** effect.

Public Transport

Construction

17.4.17 As identified in Table 17.9, there are a number of bus services that operate within the study area. These services may be disrupted during construction due to temporary traffic management measures and increased traffic on the A9 and surrounding roads. Access to the Rose Cottage bus stops may be temporarily severed due to construction works, however during this period the bus services using Rose Cottage bus stops would be diverted/disrupted. Other bus stops within the proposed scheme extents, as listed in paragraph 17.3.16, may be affected by construction activities and traffic, however, are not anticipated to have severed access for WCH.

17.4.18 It is anticipated that there will be disruption to rail services, and access to rail facilities, during construction, particularly in and around Birnam and at Dunkeld & Birnam Station due to works such as the construction of the proposed pedestrian underpass. More detailed assessment of the Dunkeld & Birnam Station is found within Chapter 16 (Population – Land Use).

17.4.19 Overall, it is predicted that public transport will have potential significant effects during the construction period, and therefore there will be potential for significant disruption to the users of these services. However, it should be noted that whilst the construction effects to public transport are predicted to be significant, the effects would not be continuous for the full 37 months of disruption. Therefore, the anticipated effects would not necessarily be experienced to the same degree by all users.

Operation

17.4.20 There are unlikely to be adverse impacts to bus services during operation. Consultation findings from the A9 Dualling Programme: Public Transport Strategy identified that during operation, "*Operators considered that the A9 Dualling would bring major operational benefits, particularly relating to improved safety (as a result of improved overtaking opportunities) and reduced journey times along the route*". The dualling provides an opportunity to improve the overall service offer for passengers living along the route (Transport Scotland, 2015). Details of both the national and local context for dualling, including safety considerations and improved journey time reliability, are provided in Chapter 2 (Need for the Scheme).

17.4.21 It is therefore predicted that there will be a Slight (beneficial) impact on public transport due to a decrease in traffic congestion thereby leading to fewer delays and improved journey times on the A9.

17.4.22 There will be no change to access of bus stops and services. There will be an improvement to the Dunkeld & Birnam Station public facilities, with the provision of a new cark park and bus stops.

17.4.23 No potential significant adverse impacts to train services during operation are anticipated as a result of the proposed scheme. There is potential for a significant beneficial impact to connectivity between public transport (bus and train) services for WCH due to the proposals for the Dunkeld & Birnam Station Replacement Car Park and the opportunity for bus turning and bus stop facilities. Whilst these improvements potentially facilitate better connectivity, it is dependent on bus service providers to introduce frequent bus services that utilise the replacement car park and serve Dunkeld & Birnam Station. Therefore, the significance of this impact is also dependent on the bus service providers.

17.5 Mitigation

17.5.1 In accordance with DMRB LA 112, the following mitigation hierarchy has been implemented during design and assessment:

- avoidance and prevention;
- reduction; and
- remediation.

17.5.2 This chapter makes reference to overarching standard measures applicable across A9 dualling projects ('SMC' mitigation item references), and also to project-specific measures ('P02' mitigation item references). Those that specifically relate to Chapter 17 (Population - Accessibility) are assigned an 'AT' reference.

17.5.3 The development of proposed mitigation is based on the approach set out in Planning Advice Note (PAN) 1/2013: Environmental Impact Assessment (Scottish Government, 2017), and to meet the legislative requirements of the Equality Act 2010 and the Land Reform Act (Scotland) 2003 (UK Government, 2010; Scottish Government, 2003). Therefore, where any new path, underpass or access point forms part of the proposed scheme, the requirements of the Equality Act 2010 were taken into account and any potential barriers to disabled users, such

as gradient, verge width, radius of bends and surface material were considered in the scheme design.

17.5.4 The WCH and Accessibility Audit (prepared under the guidance and standards contained in Transport Scotland's 'Cycling by Design' (2010) and 'Roads for All: Good Practice Guide for Roads' (2013a) publications, was used to help verify, and improve where required, the DMRB Stage 3 design in accordance with the needs of users and best practice standards. [Note that Walkers, cyclists and horse-riders (WCH) were previously referred to as Non-Motorised Users (NMU) under superseded DMRB Volume 11 'Pedestrians, Cyclists, Equestrians and Community Effects'].

17.5.5 Consultation on accessibility matters with the Accessibility Forum and Perth Access Forum was undertaken in March and October 2017, with further engagement in April 2024 and February 2025. This consultation during the development of the proposed scheme was to enable accessibility to be fully considered in the design. However, cognisance was also taken of the existing conditions and current access provision beyond the tie-in of the proposed scheme and due to the rural and the existing topographical constraints, a number of the realigned WCH routes may not be suitable for all users.

17.5.6 Furthermore, a number of the existing WCH routes comprise compacted soil or grass surfaces, which are proposed to be improved within the proposed scheme extents. However, in some locations, local constraints can result in non-compliance with the standards contained in 'Roads for All: Good Practice Guide for Roads' (Transport Scotland, 2013a). Where surfaces are not compliant, a 'Departure from Standard' has been identified and discussed with the relevant authority.

17.5.7 To supplement the mitigation provided for WCH, mitigation for other environmental impacts would in some instances have additional benefits of improving conditions for WCH, such as proposed landscape planting to provide screening (Chapter 10: Landscape and Chapter 11: Visual) as well as measures employed to manage potential air quality and noise impacts (Chapter 8: Air Quality and Chapter 15: Noise and Vibration). As reported in Chapters 10 (Landscape) and 11 (Visual), planting would be monitored for a minimum of five years after construction, with annual replacement of any failed planting with stock of a suitable age, so as to achieve full establishment and the required level of mitigation/impact reduction by summer 15 years after opening.

Embedded Mitigation

17.5.8 As noted in Section 17.4 (Potential Impacts) and Chapter 5 (Iterative Design Development), the proposed scheme design incorporates embedded mitigation such as provision of footpaths/cycleways, landscape planting to provide screening, a temporary bridge for access to Dunkeld & Birnam Station during construction, and new crossing points. Embedded mitigation for WCH comprises careful consideration of the improvements to accessibility, including new route alignments and integration into the existing path network. Additionally, these measures were considered to reduce potential visual impacts on landscape features as seen by vehicle travellers, particularly those that contribute to the Special Landscape Qualities of the River Tay National Scenic Area. Embedded mitigation forming part of the proposed scheme (as shown on Figure 17.2) specifically related to provision for WCH comprises:

- New underpasses providing safe crossing points of the A9 for WCH (identified in Table 17.16); and
- WCH route realignments (shown on Figure 17.2 and described in Table 17.14).

Table 17.14: WCH route realignments

Location (Path ref.)	Main Users*	Description of Realignment Proposed
22/NCR77	Cyclists Horse-riders	NCN77 and DUNK/142 will be severed by the proposed alignment. WCH (note that walkers and wheelers travelling along the route in JLA 2 will be re-directed along path 20 (DUNK/69).
23	Walkers Wheelers Cyclists Horse-riders	This path would be severed by the proposed scheme and access across the A9 at the existing at-grade crossing point (CP02) would be stopped up. WCH would be redirected via the new underpass then along path 22/NCR77.
48/NCR77	Walkers Wheelers Cyclists Horse-riders	The existing path would be truncated by the proposed scheme. A replacement path over Tay Crossing on the southbound carriageway will reroute path 48/NCR77 (DUNK/100) to connect to path 38/NCR77 (DUNK/145) on the eastern side of Jubilee Bridge.
* Although predominant users of the paths are identified, it should be noted that access is not limited to a single user group.		

Standard Mitigation

17.5.9 Standard mitigation commitments to mitigate potential impacts on WCH and Vehicle Travellers during construction are set out in Table 17.16. Mitigation regarding provision of temporary fences during construction for the health and safety of the public and animals is included separately in Chapter 16 (Population – Land Use).

Specific Mitigation

17.5.10 Development of the proposed scheme design has taken into account the need to maintain access for WCH along and across roads and paths directly affected by the new road infrastructure. The proposed scheme design includes the provision of new footways and cycleways which maintain and improve access along existing WCH routes.

17.5.11 Mitigation measures (Mitigation Items P02-AT9 to P02-AT15) to avoid or reduce remaining potential impacts for WCH are outlined in Table 17.15 and Chapter 22 (Schedule of Environmental Commitments), and are illustrated on Figure 17.2.

Table 17.15: Project specific mitigation for accessibility

Item No.	Location (Path ref.)	Crossing Point	Users	Proposed Mitigation Description
Footways, cycleways and other routes (including access to outdoor areas)				
P02-AT9	Paths 7 and 7a	CP01	All WCH	New signage will be provided to direct users along the new Murthly underpass.
P02-AT10	Path 22/NCR77	CP04	All WCH	New signage will be provided to direct users to the path adjacent to northbound carriageway to Dunkeld & Birnam Station. A stepped slope with adjacent cycle gutter from Platform 1 of the station will allow access to Birnam Glen. Additionally, signage for step-free access to Birnam Glen via the station underpass between Platform 1 and Station Road will be provided.
P02-AT11	Path 23	CP02	All WCH	New signage will be provided to direct users along the new Birnam Junction underpass.
P02-AT12	Path 33	CP07 and CP06	All WCH	New signage will be provided to direct users along a new footway along the southern arm of the roundabout, crossing the A9 via the underpass at CP07.
P02-AT13	Paths 33 and 36	CP07	All WCH	New signage will be provided to direct users along the new footway running alongside the northbound A9 carriageway.
P02-AT14	Paths 33 and 36	CP07	All WCH	New signage will be provided to direct users along the existing diversion in place due to the footbridge being washed away.
Public Transport				
P02-AT15	Dunkeld and Birnam Station	N/A	Rail users	Advance notice will be given of disruption to rail services and closure of the Dunkeld and Birnam Station during construction. Alternative bus routes for travellers during this period will be available.

Schedule of Environmental Commitments

17.5.12 A summary of the essential mitigation measures, to be implemented in constructing and operating the proposed scheme, is provided in Table 17.16. These measures shall be secured

through contractual responsibilities between Transport Scotland and its Designer and appointed Contractor.

Table 17.16: Schedule of Environmental Commitments - Accessibility

Mitigation Item	Approximate Chainage / Location	Timing of Measure	Responsible Party for Implementation	Description	Mitigation Purpose / Objective	Specific Consultation or Approval Required	Monitoring Measure for Suggested Mitigation
Standard Mitigation							
SMC-AT1	Throughout proposed scheme	Construction	Main Contractor	The construction programme will minimise the length of closures or restrictions of access for WCH as far as reasonably practicable.	To minimise length of closures or restrictions of access for WCH.	None required	N/A
SMC-AT2	Throughout proposed scheme	Construction	Main Contractor	Where practicable, temporary diversion routes and/or assisted crossings will be provided to maintain safe access for WCH throughout the construction works. Any closure or re-routing of routes used by WCH would take cognisance of the 'Roads for All: Good Practice Guides for Roads' (Transport Scotland, 2013a). These will be agreed in advance with the relevant local authorities and will be clearly indicated with signage as appropriate.	To maintain safe access for WCH throughout the construction works.	Any closures will be agreed with Transport Scotland (Rights of Way), Cairngorms National Park Authority and/or PKC (local and core paths).	N/A
SMC-AT3	Throughout proposed scheme	Construction	Main Contractor	In consultation with the relevant Roads Authority and public transport provider, bus stops affected by the works will be relocated safely with a safe access route provided for WCH.	To maintain access to Public Transport facilities.	Consultation with the relevant Roads Authority and public transport provider	N/A
SMC-AT4	Throughout proposed scheme	Pre-Construction Construction	Main Contractor	The Contractor will produce a traffic management plan that will include measures to avoid or reduce disruption to the road traffic, and in accordance with the Traffic Signs Manual (Department of Transport, 2009). The plan will include consideration of the timing of works, the location of haul roads to reduce site traffic on the public roads and a well-maintained traffic management system with sweeping of roads to reduce construction debris on the carriageway.	To avoid or reduce disruption to the road traffic.	None required	Via supervision requirements outlined in Contract Documents.
SMC-AT5	Throughout proposed scheme	Construction	Main Contractor	Reasonable precautions will be taken by the Contractor to avoid or reduce road closures. One lane in each direction will be provided for A9 traffic during peak hours (Mon to Fri) except in exceptional circumstances and for closures which are pre-approved by Transport Scotland e.g. those required during blasting.	To avoid or reduce road closures and resulting disruptions to traffic.	Approval required form transport Scotland in the event of required A9 lane closures during peak hours.	Via supervision requirements outlined in Contract Documents.
SMC-AT6	Throughout proposed scheme	Construction	Main Contractor	Road diversions will be clearly indicated with road markings and signage as appropriate. Any road closures will be notified in advance through road signage and appropriate signage will be provided for the duration of the closure. The Contractor will also be responsible for identifying any notable changes in patterns of road network use during construction, where such changes may cause significant disruption elsewhere (such as drivers re-routing away from the A9), and will review and update traffic management provisions as appropriate in discussion with Transport Scotland.	To reduce disruption to the road users.	None required	Via supervision requirements outlined in Contract Documents.
SMC-AT7	Throughout proposed scheme	Construction	Main Contractor	Appropriate lighting will be provided during any necessary night-time working, taking into account the requirements of Mitigation Items E10 and LV4.	To mitigate potential impacts on driver stress such as fear of potential	None required	Via supervision requirements

Mitigation Item	Approximate Chainage / Location	Timing of Measure	Responsible Party for Implementation	Description	Mitigation Purpose / Objective	Specific Consultation or Approval Required	Monitoring Measure for Suggested Mitigation
					accidents due to inadequate lighting provision.		outlined in Contract Documents.
SMC-AT8	WCH facilities	Construction	Main Contractor	Access for WCH will be maintained and improved in accordance with the following principles: ▪ The requirements of the Equality Act 2010 and 'Roads for All: Good Practice Guides for Roads' (Transport Scotland, 2013a) shall be incorporated into the proposed scheme wherever practicable, e.g. any bridges, ramps or footpaths will not present potential barriers to disabled people such as the gradient or surfacing. ▪ WCH access shall be provided in accordance with the objectives set out in the A9 Dualling WCH Access Strategy (Transport Scotland, 2016). ▪ Surfacing of any new paths including alongside roads will be considered on a case-by-case basis, taking into account factors such as safety, the type of user and should comply with current standards. ▪ Safety of paths will be considered in accordance with the outcome of the Road Restraints Risk Assessment Process and may require provision of barriers. ▪ New cycleways/footpaths will use non-frost susceptible materials to reduce risk of degradation.	To maintain access for WCH and provide appropriate facilities based on use and improve access for WCH.	None required	Via supervision requirements outlined in Contract Documents.
Specific Mitigation							
P02-AT9	ch.100, ch.1400	Construction	Main Contractor	WCH facilities will be incorporated into the new underpass at Murthly, which will provide a safer crossing of the A9 for WCH. Facilities New signage will be provided to direct users along the new WCH provision at Murthly underpass.	To describe where new or updated WCH provision is.	None required	N/A
P02-AT10	ch. 2080	Construction	Main Contractor	New signage will be provided to direct users to the path adjacent to the northbound carriageway to Dunkeld & Birnam Station. A stepped slope with adjacent cycle gutter from Platform 1 of the station will allow access to Birnam Glen. Additionally, signage for step-free access to Birnam Glen via the station underpass between Platform 1 and Station Road will be provided.	To describe where new or updated WCH provision is.	None required	N/A
P02-AT11	ch.1670, ch.2490	Construction	Main Contractor	WCH facilities will be incorporated into the new underpass to provide a safer crossing of the A9 for WCH accessing Perth Road from B867 or the A9 (or vice versa). New signage will be provided to direct users along this new WCH provision at the new underpass.	To describe where new or updated WCH provision is.	None required	N/A
P02-AT12	ch.3920	Construction	Main Contractor	A footway will be provided along the southern arm of the new roundabout, providing WCH access to the underpass at CP07 to allow WCH to cross the A9. New signage will be provided to direct users along the new footway.	To describe where new or updated WCH provision is.	None required	N/A

Mitigation Item	Approximate Chainage / Location	Timing of Measure	Responsible Party for Implementation	Description	Mitigation Purpose / Objective	Specific Consultation or Approval Required	Monitoring Measure for Suggested Mitigation
P02-AT13	ch.4290	Construction	Main Contractor	New signage will be provided to direct WCH along the new footway running alongside the northbound A9 carriageway.	To describe where new or updated WCH provision is.	None required	N/A
P02-AT14	ch.4300	Construction	Main Contractor	New signage will be provided to direct WCH along the existing diversion in place due to the footbridge being washed away.	To describe where new or updated WCH provision is.	None required	N/A
P02-AT15	ch.3350 (Dunkeld and Birnam Station)	Construction	Main Contractor	Advance notice will be given of disruption to rail services and closure of the Dunkeld and Birnam Station during construction. Alternative bus routes for travellers during this period will be available.	To provide notice of rail disruption and closures.	None required	N/A

17.6 Residual effects

17.6.1 The residual effects are those impacts that remain following the implementation of the mitigation measures and are described in this section as set out in Appendix A17.1. This section therefore considers the mitigating measures described in Section 17.5 (Potential Mitigation), such as effects of planting, and presents the residual effects based on summer 15 years after opening.

WCH Routes

Footpaths/Cycleways and Other Routes

Construction

17.6.2 During construction, the proposed mitigation measures will help reduce impacts on WCH. However, disruption to journeys is still likely to be experienced as a result of temporary diversions. In addition, there are expected to be temporary amenity impacts in the vicinity of construction activities as a result of temporary views of construction activities and/or increased noise (Chapter 11: Visual and Chapter 15: Noise and Vibration respectively).

17.6.3 Following implementation of mitigation, it is expected that residual effects on WCH during the construction of the proposed scheme will be temporary but significant (**Moderate** to **Substantial**) for WCH using:

- Path 19, 24, 25, 26a and 36 due to impacts on amenity value; and
- NCR77 (south) and Paths 7, 7a, 22/NCR77, 23, 33, 35, 39 and 48/NCR77 due to impacts on amenity value and potential diversion lengths during construction.

Operation

17.6.4 Residual significant impacts resulting from the proposed scheme during operation on all crossing points and WCH routes are provided in Table 17.17. As embedded mitigation is included in design and in the assessment of the change in journey length and amenity, mitigation measures in Table 17.17 refer to standard and specific mitigation. A complete assessment of residual effects on WCH, including non-significant impacts is detailed in Table A17.1-5 in Appendix A17.1 (Impact Assessment for WCH Routes and Access to Outdoor Areas).

Table 17.17: Summary of potential impacts and significance of residual effects on crossing points and paths during operation

WCH Path	Path type	Crossing point	Potential impact significance	Mitigation measure	Significance of Residual Effects
Path 7a	Local Path (non-designated)	CP01	Slight to **Moderate**	Established embedded landscape mitigation; P02-AT9	**Moderate**

WCH Path	Path type	Crossing point	Potential impact significance	Mitigation measure	Significance of Residual Effects
Path 19	Local Path (non-designated)	N/A	**Moderate**	Established embedded landscape mitigation	**Moderate**
Path 22/NCR77	Core Path DUNK/142 National Cycle Route NCR77	N/A	**Moderate**	Established embedded landscape mitigation; P02-AT10	**Moderate**
Path 23	Core Path DUNK/57 Right of Way 32/10	CP02	**Large**	Established embedded landscape mitigation; P02-AT11	**Large**
Path 33	Core Path DUNK/59	N/A	**Large**	Established embedded landscape mitigation; P02-AT12, P02-AT13, P02-AT14	**Moderate**
Path 35	Core Path DUNK/23	CP07, CP08, CP09	**Large** to **Very Large**	Established embedded landscape mitigation	**Large**
Path 47	Local Path (non-designated)	N/A	**Moderate**	Established embedded landscape mitigation	**Moderate**
48/NCR77	Core Path DUNK/100 National Cycle Route NCR77	N/A	**Large** to **Very Large**	Established embedded landscape mitigation	**Moderate**

Access to Outdoor Areas

Construction

17.6.5 Residual effects have been determined for WCH using professional judgement taking into account mitigation measures set out in Section 17.5. During construction, the proposed mitigation measures would reduce impacts on WCH access to outdoor facilities. However,

disruption to journeys would still likely be experienced as a result of temporary diversions, therefore it is expected that residual effects on WCH access to Birnam Hill via Path 23, River Tay via Path 35, and River Braan via Paths 35 and 39 during construction will be significant (**Moderate** to **Substantial**).

Operation

17.6.6 Significant residual effects resulting from the proposed scheme during operation on access to outdoor areas are provided in Table 17.18. A complete assessment of residual effects on outdoor access, including non-significant effects is detailed in Table A17.1-6 in Appendix A17.1 (Impact Assessment for WCH Routes and Access to Outdoor Areas).

Table 17.18: Summary of potential impacts and significance of residual effects on outdoor access during operation

Facility	Outdoor Access Area	Residual Effect	Significance of Residual Effects
Area facilities			
Woodland	Ring Wood	**Moderate** potential impacts are anticipated for WCH using Path 19. Slight potential impacts are anticipated for WCH using NCR77 (south). Overall, Slight to **Moderate** potential impacts are anticipated for WCH accessing Ring Wood.	**Moderate**
River	River Braan	**Large** potential impacts are anticipated for WCH using Path 35. **Moderate** potential impacts are anticipated for WCH using Path 33. Slight potential impacts are anticipated for WCH using Paths 24, 36, 39, 41 and 44. Negligible potential impacts are anticipated for WCH using Paths 42 and 43/ NCR77. Overall, **Moderate** potential impacts are anticipated for WCH accessing the River Braan.	**Moderate**

Public Transport

Construction

17.6.7 No significant residual effects on public transport are anticipated during construction, due to the nature of the works and the standard mitigation in place. It is expected that there will be disruption to the rail timetable with temporary closure of the railway resulting from construction of the new underpass at this location. However, this is not considered to be

significant, as the closure is short term, and Dunkeld & Birnam Station will remain open at other times. The Dunkeld & Birnam Station car park will remain available at all times. More detail on construction impacts relating to Dunkeld & Birnam Station and associated rail services are provided in Appendix 6.1 (Construction Information) and Chapter 16 (Population - Land Use).

Operation

17.6.8 No significant residual effects on public transport are anticipated during operation. Slight (beneficial) residual effects on bus services are anticipated due to a decrease in traffic congestion thereby leading to fewer delays and improved journey times on the A9. There is potential for a significant (beneficial) residual effect due to the improvement to connectivity between bus and train services for WCH due to the proposed replacement car park at Dunkeld & Birnam Station. However, as described in paragraph 17.4.23, this is dependent on bus service providers and how they use the improved facility. More detail on the impacts to WCH access to and accessibility of public transport is included in Chapter 16 (Population – Land Use).

17.6.9 The proposed Dunkeld & Birnam Station pedestrian underpass will provide improved WCH provision via the pedestrian underpass, allowing step-free access from the Dunkeld & Birnam Station Replacement Car Park to Platform 1 and Platform 2, and between the two station platforms. Additionally, improvements to Dunkeld & Birnam Station as a whole will improve access by the wider community, and potential bus and active travel facilities, via the proposed replacement car park and improved WCH paths. This is assessed in Chapter 16 (Population – Land Use).

17.7 Compliance against Plans and Policy

17.7.1 DMRB LA 104 states that environmental assessment, reporting and monitoring shall meet the requirements of the national planning policy for each relevant Overseeing Organisation (National Highways et al. 2020b). Appendix A3.1 (Assessment of Policy Compliance) provides a review of national and local policy documents which are of relevance to the assessment undertaken and reported in this chapter in accordance with DMRB guidance. The compliance assessment undertaken in Appendix A3.1 focuses principally on the long-term effects of the proposed scheme rather than the short term, temporary effects from construction.

17.7.2 National policy objectives of relevance to this assessment are provided in the NPF4 (Scottish Government, 2024). The Perth and Kinross Local Development Plan 2 (Perth and Kinross Council, 2019) along with Landscape Supplementary Guidance (PKC, 2020a) and Placemaking Supplementary Guidance (PKC, 2020b) are also pertinent.

Summary of Policy Compliance

17.7.3 The proposed scheme is anticipated to increase journey lengths for some WCH routes, which conflicts with the requirements of policy to prioritise active travel and reduce the necessity for unsustainable travel. However, in context, whilst there are increased journey lengths for some WCH routes, there is also increased segregation between vehicular traffic and road crossings, which improves safety for WCH. Public transport is expected to benefit from the

proposed scheme and provides an opportunity for existing facilities to be upgraded. Overall, the proposed scheme has had regard to, and is, on balance, compliant with policy objectives to reduce effects on accessibility. A full policy compliance assessment can be found in Table A3.1-10 of Appendix A3.1 (Assessment of Policy Compliance).

17.8 Statement of Significance

Walkers, wheelers cyclists and horse-riders

Footpaths/Cycleways and Other Routes

17.8.1 With the proposed scheme in place and taking into account mitigation measures as described in Section 17.5 (Mitigation), there are **Moderate** to **Substantial** significant residual effects during construction due to reductions of amenity value and the diversion lengths for WCH using NCR77 (south) and Paths 7, 7a, 22/NCR77, 23, 33, 35, 39 and 48/NCR77. In addition, there are **Moderate** to **Substantial** significant residual effects on WCH using Paths 19, 24, 25, 26a and 36 due to reductions in amenity value.

17.8.2 **Moderate** significant residual effects during operation are predicted for WCH using Path 48/NCR77 due to an increase in path length associated with the wider extents of the proposed scheme. **Moderate** significant residual effects during operation are predicted for WCH using Path 33 due to a combination of a decrease in amenity value and changes to journey lengths. **Moderate** significant residual effects during operation are predicted for WCH using Paths 7a, 19, 22/NCR77 and 47 due to decreased amenity value associated with the proposed scheme and there are **Large** significant residual effects during operation for WCH using Paths 23 and 35 due to an increase in journey length arising from realigned crossing points associated with the proposed scheme.

Access to Outdoor Areas

17.8.3 For WCH accessing Birnam Hill via Path 23 there are **Moderate** to **Substantial** residual effects identified during construction due to temporary reduction of local amenity and journey disruption. Accessing the River Tay via Path 35, and accessing the River Braan via Paths 35 and 39, are also anticipated to have **Moderate** to **Substantial** residual effects during construction.

17.8.4 For WCH accessing Ring Wood via Path 19 there are **Moderate** residual effects identified during operation due to the reduction in path length. For WCH accessing River Braan via Paths 33 or 35, **Moderate** residual effects are identified during operation due to the journey length increases from realignment of paths.

Public Transport

17.8.5 For WCH accessing Dunkeld & Birnam Station via bus (and vice versa), there is potential for a significant beneficial residual effect due to the improvement to connectivity between bus and train services. However, this is dependent on bus service providers and how they use the improved facility.

17.9 References

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