6. Effects of Scheme Proposals

6.1 Pass of Birnam to Tay Crossing – Journey Times

6.1.1 Between the Pass of Birnam and Tay Crossing project extents, the A9 would remain the primary route through the corridor and the proposed scheme is not anticipated to affect the route taken by through traffic on the A9 travelling in either direction. Strategic traffic would not be anticipated to leave and re-join the A9 using any of the parallel local roads, such as Perth Road through Birnam.

6.1.2 The grade separated junctions proposed as part of the Pass of Birnam to Tay Crossing project (Birnam, Hermitage and Dalguise) and the proposed Dunkeld Roundabout are located at approximately the same locations as the existing junctions. As such, the existing traffic patterns around Dunkeld and Birnam would broadly remain, following construction of this project. However, because no southbound diverge slip road will be provided at the Birnam Junction, southbound traffic that currently makes a right turn to access the B867 towards Bankfoot will need to leave the A9 at the proposed Dunkeld Roundabout and route via Perth Road or remain on the A9 and leave at the Bankfoot Junction.

6.1.3 There will also be a small increase in traffic in both directions between Dunkeld Roundabout and Dalguise Junction as access to and egress from The Hermitage will only be from and to the A9 northbound carriageway. Traffic from the north will have to turn at Dunkeld Roundabout, while traffic heading south will have to turn at the Dalguise Junction.

6.1.4 Table 6-1 shows the modelled journey times for the base, Do-Minimum and the Do-Something from Pass of Birnam to Tay Crossing under the 'With Policy' forecast scenario. The journey time for the proposed scheme is around one minute lower in all time periods compared to the scenario without the scheme. This is the journey time saving for vehicles travelling on the A9 for the full length of the road between Pass of Birnam and Tay Crossing.

6.1.5 Southbound journey times on this section of the A9 are currently slightly greater than the northbound travel times under the Do-Minimum, particularly in the period after 10:00, but under the proposed scheme the difference between northbound and southbound journey times is anticipated to be minimal.

OPTION	JOURNEY TIME (M: SS)			
	DIRECTION	PERIOD 1 – 07:00 – 10:00	PERIOD 2 – 10:00 – 16:00	PERIOD 3 – 16:00 – 19:00
BASE 2015	NB	5:59	5:59	5:54
	SB	6:04	6:20	6:16
DO MINIMUM 2025	NB	6:00	5:58	5:54
	SB	6:06	6:20	6:16
DO MINIMUM 2036	NB	6:03	6:01	5:55
	SB	6:11	6:23	6:20
DO SOMETHING 2036	NB	5:07	5:01	4:58
	SB	4:57	5:00	4:58
DO MINIMUM 2051	NB	6:06	6:04	5:58
	SB	6:11	6:25	6:22
DO SOMETHING 2051	NB	5:10	5:03	5:00
	SB	4:57	5:02	5:00

Table 6-1: Journey time from Pass of Birnam to Tay Crossing – 'With Policy' forecast

Table Notes:

1. *Do Something journey times relate to the Do Something scenario under the 'With Policy' forecast*

6.1.6 Table 6-2 shows the equivalent modelled two-way traffic journey times for the proposed scheme from Pass of Birnam to Tay Crossing under the 'Without Policy' forecast scenario. As with the 'With Policy' forecast scenario, the journey time for the proposed scheme is around one minute lower in all time periods compared to the Do-Minimum scenario. This is the journey time saving for journeys travelling on the A9 for the full length of the road between Pass of Birnam and Tay Crossing.

6.1.7 Although forecast traffic levels on the A9 are higher under this scenario, the journey times in Table 6-2 are all broadly similar to the equivalent time in Table 6-1. In general, the Do-Minimum travel times are one or two seconds higher under the 'Without Policy' forecast scenario, reflecting the additional traffic, while the average Do Something travel times are one or two seconds lower under the 'Without Policy' forecast scenario because the higher proportion of faster moving cars increases the average speed. Both forecast policy scenarios have a similar number of heavy goods vehicles using the A9, as the Scottish Government's policy commitment was only to reduce car kilometres, so a similar number of platoons will form under both Do Minimum demand scenarios.

OPTION	JOURNEY TIME (M: SS)			
	DIRECTION	PERIOD 1 – 07:00 – 10:00	PERIOD 2 – 10:00 – 16:00	PERIOD 3 – 16:00 – 19:00
BASE 2015	NB	5:59	5:59	5:54
	SB	6:04	6:20	6:16
DO MINIMUM 2025	NB	6:01	5:59	5:54
	SB	6:07	6:19	6:16
DO MINIMUM 2036	NB	6:05	6:02	5:56
	SB	6:11	6:23	6:20
DO SOMETHING 2036	NB	5:05	4:59	4:56
	SB	4:56	4:59	4:56
DO MINIMUM 2051	NB	6:08	6:07	6:00
	SB	6:12	6:26	6:24
DO SOMETHING 2051	NB	5:09	5:03	4:58
	SB	4:56	5:01	4:58

Table 6-2: Journey time from Pass of Birnam to Tay Crossing – 'Without Policy' forecast

Table Notes:

1. *Do Something journey times relate to the Do Something (Environmental) scenario under the 'Without Policy' forecast*

6.2 Access to and from the Murthly Estate

6.2.1 There is currently a direct access to the Murthly Estate from the A9 immediately north of the tie-in point with the existing dual carriageway section at Pass of Birnam, at which all turning movements are permitted. Under the proposed Pass of Birnam to Tay Crossing project this access will be closed. A new access will be provided onto the B867 with the new access road passing under the A9.

6.2.2 Traffic travelling north from the Murthly Estate access will turn right onto the B867 and join the A9 northbound carriageway at the proposed Birnam Grade Separated Junction. In the reverse direction, traffic will have to leave the A9 southbound carriageway at the proposed Dunkeld Roundabout and then travel through Birnam on Perth Road continuing to the B867 and the new access. The travel distance in both directions is comparable to the existing travel distances.

6.2.3 Traffic travelling south from the Murthly Estate could either turn left onto the B867 and head through Bankfoot to join the A9 southbound carriageway at the existing Bankfoot junction, or turn right, head north to the proposed Birnam Grade Separated Junction and join the A9 southbound

carriageway at that point. The route via Bankfoot would be approximately 1km longer than making a left turn from the existing access, whilst the route via the proposed Birnam Grade Separated Junction would add approximately 2.8 km to the journey.

6.2.4 However, it should be noted that from much of the Estate, including Murthly Castle itself, the shortest and quickest route to the south is not via the access that is being closed, but via the local road network to the Bankfoot Junction. The proposed closure of the northern access to the Murthly Estate will have no impact on these existing routes to the south and therefore is unlikely to have an impact on travel to and from Murthly Castle from the south.

6.2.5 For traffic from the south that currently makes a right turn from the A9 into the access to be closed the alternative options are to leave the A9 at the Bankfoot Junction and travel northbound through Bankfoot on the B867, or alternatively, remain on the A9, leave at the proposed Birnam Grade Separated Junction and then travel south on the B867 to the new access.

6.3 Access to and from Dunkeld and Birnam Railway Station

6.3.1 The current Dunkeld and Birnam railway station car park is accessed directly from the A9. Under the proposed scheme, the car park will be relocated to the western end of Station Road, accessed from Perth Road in Birnam, with a pedestrian underpass providing direct access to the station platforms from the new car park.

6.3.2 For vehicles that approach the station on the A9 from the north, access to the car park will be via the proposed Dunkeld Roundabout, A923, Perth Road and Station Road, whilst for vehicles from the south, access will be via the proposed Birnam Grade Separated Junction, Perth Road and Station Road. The distances travelled to the new car park location would be around 200m greater for those travelling to and from the north and 400m greater for those travelling to and from the south.

6.3.3 However, for station users travelling to or from Dunkeld, the distance travelled to the station car park would be approximately 100m less than the current access arrangement, and for residents of Birnam, the distance travelled to the station car park could be up to 1.7km less than the current arrangement depending on where within Birnam the journey starts. Some of these users may be more likely to access the station via active modes given the reduction in severance.

6.3.4 Usage of the existing station car park is low. A usage survey conducted on Tuesday 29th September 2015 indicated that only 20 vehicles used the car park across the entire day. Some of these vehicles were parked for a significant duration, whilst for other vehicles there was a short time between the arrival and departure – most likely a driver dropping someone off or picking someone up from a train. Most arrivals and departures coincided with train times. The low number of users of the station car park means the impact in traffic on Station Road and Perth Road will be negligible.

6.4 Access to and from Tay Forest Park

6.4.1 There is currently a direct access to the Tay Forest Park (White Gates) from the A9 around half a mile south of the existing B898 Dalguise Junction. This is one of several means of access / egress to and from Forestry and Land Scotland owned land to the west of the A9. Alternative access points to this forested area are from the junction at The Hermitage (Craigvinean – Hermitage Brae) and from the B898, both at the Dalguise Junction (Douglas Fir Wood) and further north at Dalmarnock (Craigvinean - Dalmarnock).

6.4.2 For traffic from the north travelling to the Tay Forest Park, it may be more appropriate to use the new Dalguise Junction and the alternative access to the forest park from the B898 (Douglas Fir Wood). The alternative access would be to continue south to the proposed Dunkeld Roundabout to access the A9 northbound carriageway and leave at The Hermitage Junction.

6.4.3 For traffic from the south, the choice of access point will depend on where within the Forest Park the driver is trying to access but both access locations (Hermitage or Dalguise) will be readily accessible from the northbound carriageway without having to make more complicated journeys to turn and return.

6.5 A9 Tay Crossing to Ballinluig – Southern Tie-in Roundabout

6.5.1 As part of the A9 Dualling: Tay Crossing to Ballinluig scheme, a temporary roundabout is planned at the southern end of the scheme, to be in place until the construction of the A9 Dualling: Pass of Birnam to Tay Crossing Scheme. The purpose of this temporary roundabout is to accommodate traffic from the north, bound for accesses within the scheme, which are only catered for by a left-in, left-out arrangement on the northbound carriageway, principally two fishing bothies, or for northbound traffic travelling via the Dunkeld to Rotmell (C502) Road Junction. On removal of the temporary roundabout, the small number of vehicles making such a manoeuvre will use the new Dalguise Junction instead.