

## B9097 Route Action Plan



Map 1 - B9097 Route (highlighted in red)

### 1.0 BACKGROUND

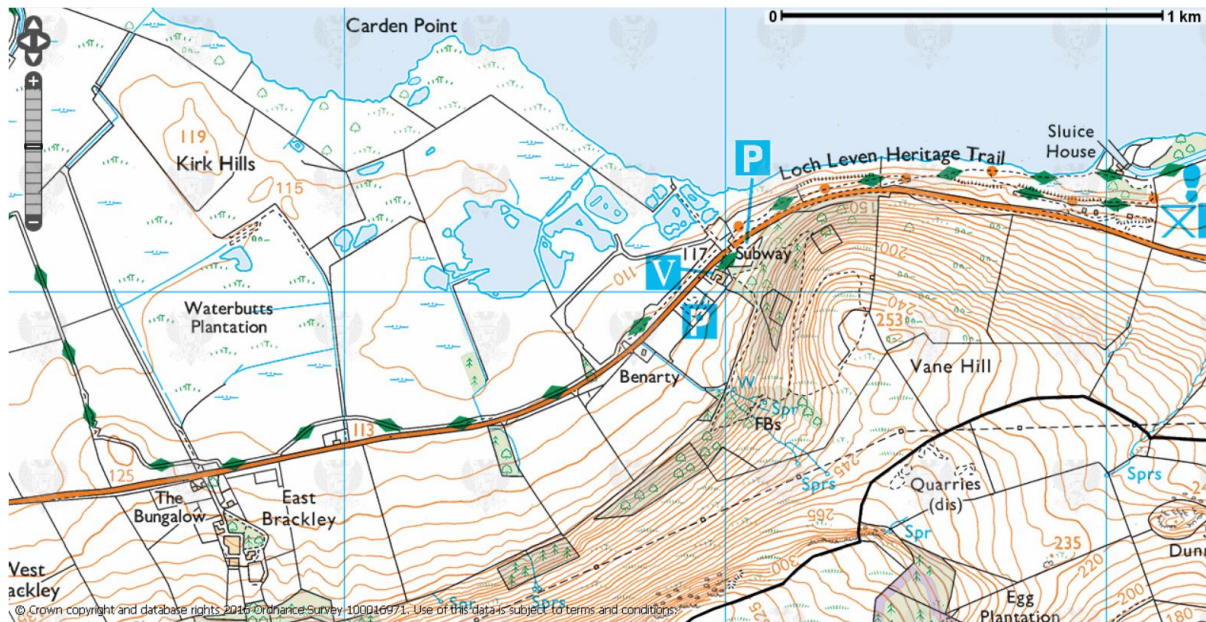
**1.1** The number 9 prefix locates the B9097 in Zone 9 of the UK road numbering system focused on the North East of Scotland, north of the A8 and east of the A9. The B9097 runs for 20.1km (12.8 miles) over three sections from the A977 in Kinross-shire to the B921 in Fife. 16.3km (10.1 miles) are located in the Perth & Kinross Council area as shown on **Map 1**. Within Perth and Kinross, the route crosses the M90 at Junction 5 and is intersected by the B996 and B920.

**1.2** From Crook of Devon in the west, the first section proceeds east for a distance of 10.5km and terminates at the southern junction with the B996, immediately east of the M90 Junction 5. The second section runs from the northern junction with the B996, located 265m to the north of the southern junction, eastwards for 5.5km along the south of Loch Leven to the northern B920 junction. The third sections starts approximately 700m south at Middleburn, near the village of Ballingry, and runs for 330m southeast from the southern B920 junction to the Fife Council boundary at the Lochty Burn. The B9097 continues through Fife past the Fife Environmental Energy Park at Westfield to the junction with the B921 near Auchterderran. All three sections of the B9097 are subject to the national speed limit, and have no street lighting or footways.

**1.3** Traffic survey data is not currently available for the shorter, third section in the south-east so the Route Action Plan will focus on the two main sections west and east of the M90. The report will be updated once the additional traffic survey data for the south-eastern section becomes available later in 2017.

**1.4** The two main sections of the road are different in character. The eastern section was widened and straightened over thirty years ago to accommodate heavy traffic between the M90 and the open-caste mine at Westfield in Fife (now decommissioned). It has no public road junctions other than its terminations. There are no settlements identified in the Kinross Local Area Plan although there is a scattered community at East Brackley. The wide, level verges assist egress from private accesses. The area is subject to mixed agricultural use.

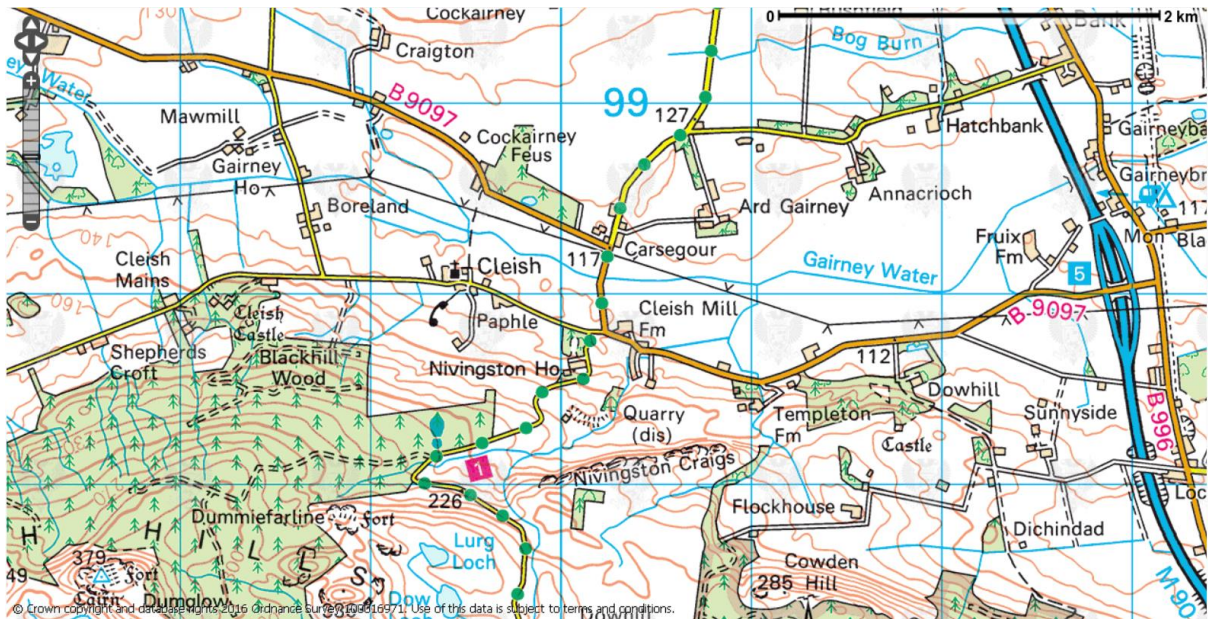
**1.5** There are two major tourist attractions on the eastern section of the road. Visitor information from Visit Scotland reveals that the RSPB Loch Leven nature reserve at Vane Farm is one of the top ten tourist attractions for European visitors in Perth and Kinross. Loch Leven Lodges at Findatie at the east of the road is an expanding self-catering holiday resort. A major attraction to the Kinross area is the Loch Leven Heritage Trail which provides a cycle path around the loch. Between East Brackley and the sluice house at Findatie the trail runs parallel with the B9097 on the north side of the road as shown on **Map 2**. There is an underpass at Vane Farm to provide a pedestrian link between the Heritage Trail and the RSPB visitors' centre. Discussions are currently ongoing between the RSPB and Perth & Kinross Council to upgrade this facility in order to provide improved access for visitors with restricted mobility.



**Map 2** – Loch Leven Heritage Trail (green diamonds)

**1.6** On the western section, the road widths and road alignment are both poorer. There are a number of minor public road junctions where visibility is restricted by the narrow verges, particularly on the western half. The Kinross Local Area Plan shows the north side of the road between Crook of Devon and Drum included within the settlement boundary, although there also some development on the south side of the road including a Travellers' Site at Crook Moss. There is a second settlement, just off the B9097 at Fruix, at the east near the M90. In addition, there are several scattered communities not currently identified in the Local Plan at Craigton, Carsegour (off the B9097) and Watergate. The area is subject to mixed agricultural use. In addition, there is commercial activity at Tullibole Castle to the west and Loch Leven Equine Practice to the east.

**1.7** A 440m section of the road between Carsegour and Cleish Mill carries part of the National Cycle Network (NCN) 1 as shown on Map 3. This is a long distance route connecting Dover with the Shetland Islands via the east coast and runs from Dunfermline along the B9097 to Kinross and on to St Andrews. To the west at Easter Aldie, there is a 70m section of off-road cycle path on the north side of the road connecting two portions of a Green Route running along the Coldrain and Aldie roads. Green Routes are on-road links between rural communities where the reduced carriageway width and poor road alignment enables the introduction of a self-enforcing lower speed limit. These routes are promoted as cycling and walking friendly. The cycle path was constructed between the staggered crossroads to facilitate cyclists and pedestrians crossing the national speed limit on the B9097.



**Map 3 – National Cycle Network 1 (green dots)**

## 2.0 ACTION

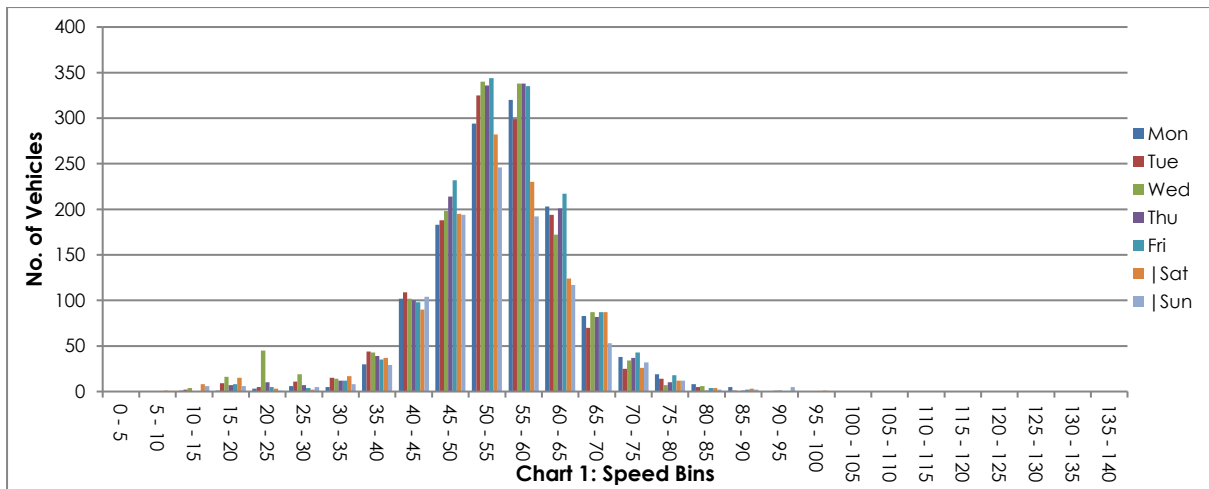
**2.1** In summer 2016, the Traffic & Network Team undertook a Route Action Plan for the two main sections of the B9097 either side of the M90. The study included the detailed examinations of reported road traffic collisions, traffic flows, vehicle speeds, road layout and road environment to identify travel patterns and the number, locations and causes of crashes along the route.

### Traffic Survey Data

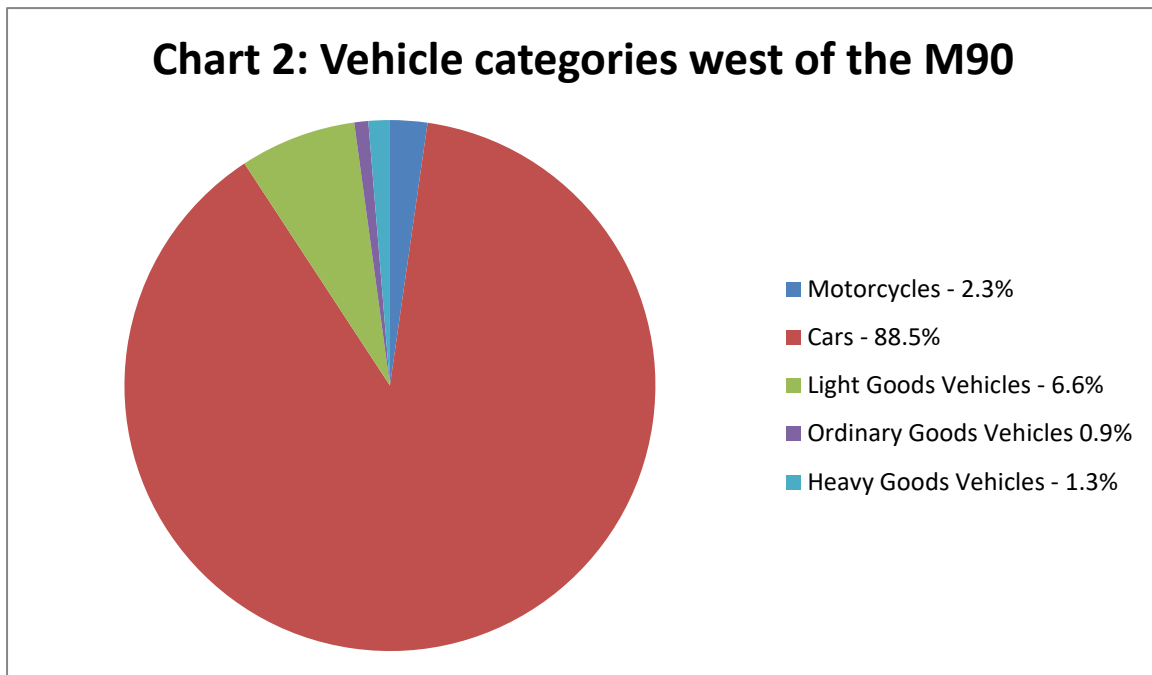
**2.2** The traffic survey data examined traffic volume, direction of flow, vehicle speeds and vehicle categories at two locations on the B9097. The survey locations were located west of the M90 approximately 1 mile west of Cleish crossroads and east of the M90 at Vane Farm approximately 1.5 miles east of the B996. These two surveys were supplemented by a series of short-duration speed surveys using a hand-held detector at various locations. Historic survey data undertaken by Tayside Safety Camera Partnership in 2003 and 2004 was used to identify any changes in traffic volumes or vehicle speeds over the last twelve years (three sites on the B9097 were assessed but did not satisfy the criteria for speed enforcement). The traffic survey data revealed that there has been no significant change in traffic flow over the past twelve years. Although there have been annual fluctuations, the annual national traffic growth appears to have been absorbed within these fluctuations.

### West of the M90

**2.3** The western section between the A977 and the B996 carried an average of 1.35K vehicles per day. During the weekends this decreased slightly to 1.3K vehicles. The traffic flows were similar in both directions – 50.5% travelling east and 49.5% travelling west. although there was a slight difference in vehicle speeds. The mean speed for westbound traffic was 52.2mph and the 85<sup>th</sup> percentile speed was 60.5mph (the 85<sup>th</sup> percentile speed is the speed at which 85% of all traffic is proceeding at or below, and is used for road design and setting speed limits). 28% of vehicles were recorded travelling above 60mph, 2.2% of which were recorded at excessive speed (15mph above the maximum permitted speed limit). The main speed for eastbound traffic was 53.4mph and the 85<sup>th</sup> percentile speed was 62mph. Almost 20% of vehicles were recorded travelling above 60mph, 1% of which were recorded at excessive speed. The speed bins for both directions, divided into 5mph segments, are shown in **Chart 1**.



**2.4** Traffic movement to the west of the M90 can be broken down into the following categories as shown in **Chart 2**: Motorcycles 2.3%, cars and cars with trailers 88.5%, light goods vehicles 6.6%, ordinary goods vehicles and buses 0.9%, and heavy goods vehicles 1.3%.

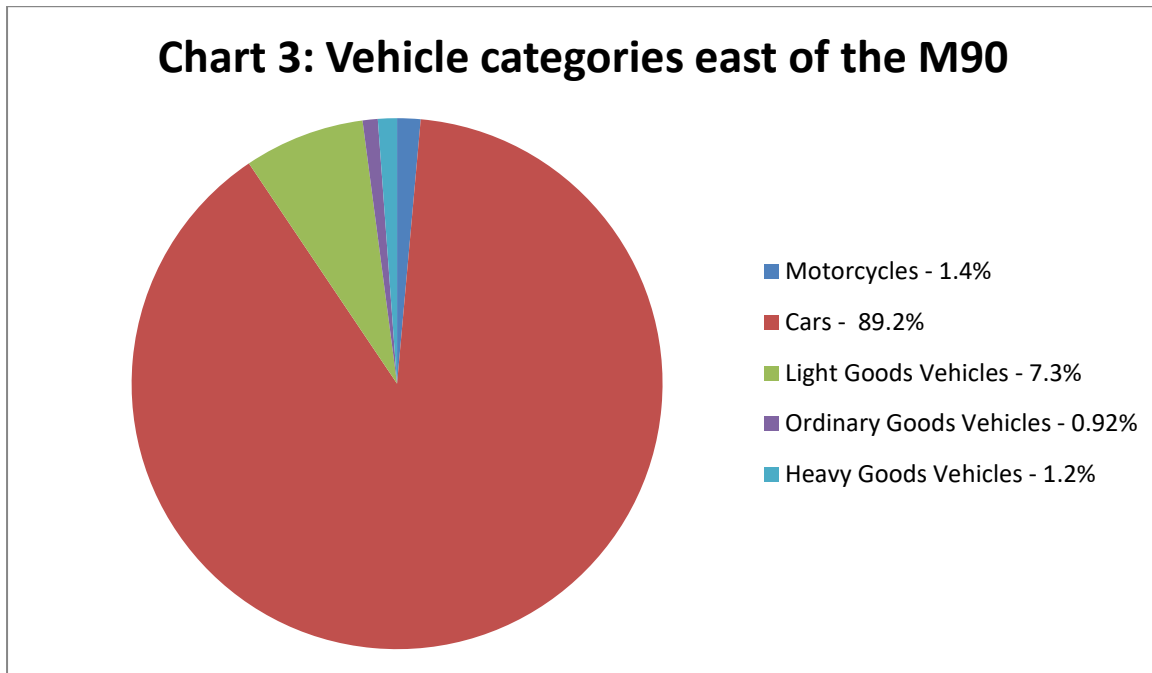


**East of the M90**

**2.5** The eastern section between the B996 and the B920 carried approximately 4.3K vehicles per day. During the weekends this decreased to 4k vehicles. Both figures are three times the volume of traffic of the western section. This is largely explained by the presence of larger population centres, such as Glenrothes, Ballingry, Lochore and Cardenen, to the east of the motorway. The traffic flow was similar in both directions - 51% travelling east and 49% travelling west. Vehicle speeds were slightly higher travelling east from the M90.

**2.6** The mean speed for westbound traffic was 52.2mph and the 85<sup>th</sup> percentile speed was 59.7mph. 14.7% of vehicles were recorded travelling above 60mph, 0.7% of which were recorded at excessive speed. The mean speed for eastbound traffic was 54.5mph and the 85<sup>th</sup> percentile speed was 62.6mph. 23.7% of vehicles were recorded travelling above 60mph, 1.5% of which were recorded at excessive speed.

**2.7** Traffic movement to the east of the M90 can be broken down into the following categories as shown in **Chart 3**: Motorcycles 1.4%, cars and cars with trailers 89.2%, light good vehicles 7.3%, ordinary goods vehicles and buses 0.9%, and heavy goods vehicles 1.2%



#### **Summary of Traffic Survey Data**

**2.8** The eastern section of the B9097 carries three times more traffic than the western section. This is largely due to the larger settlements to the east of the M90 that would use the B9097 to join the M90 for commuting. The western section of the B9097 has no population centres until it reaches its termination at Crook of Devon. Drivers, and especially commercial drivers, travelling east from Crook of Devon are directed to the M90 via the A977. The western section on the B9097 appears to be used primarily by local traffic.

**2.9** The percentage of each vehicle category is similar on both main sections of the B9097. The only discernible difference is a slightly lower percentage of cars and a slightly higher percentage of motorcycles on the western part. However, it must be emphasised that, numerically, this difference is small. The historic traffic data figures indicate that there has been no significant change in traffic volumes, vehicle speeds or travel patterns on the B9097.

**2.1.0** There has been a decrease in the overall number of motorcycles using this route over the last twelve years; but it is recognised that during events at Knockhill Racing Circuit the number of motorcycles on the B9097 increases temporarily. This travel pattern is also evident on adjoining road network such as the A91 and the A977.

## Collision and Casualty Data for Scotland and in Perth and Kinross

**2.1.1** The most recent annual Reported Road Casualties publication released by Transport Scotland records 8,808 road traffic collisions on the country's roads in 2014 resulting in a total of 11,268 casualties. This represents a decrease in the number of injury collisions by 36% from 13,855 incidents in 2004; and a casualty reduction of 39% from 18,405 people killed or injured over the same ten year period. The reductions in the numbers of collisions and casualties in recent years are notable given the continued increase in vehicle ownership and associated traffic growth over the decade between 2004 and 2014.

**2.1.2** Across Perth and Kinross in 2014, there were 215 road traffic collisions resulting in 285 casualties. This represents a 50% reduction in the number of injury collisions from 431 in 2004; and a casualty reduction of 53% from 608 people killed or injured over the same ten year period. *[All of these figures do not include damage-only, non-injury crashes which are no longer recorded by or supplied to Local Roads Authorities by Police Scotland]*

**2.1.3** On the local road network, excluding trunk roads which are the responsibility of Transport Scotland and their operating contractor BEAR Scotland, there were 67 reported injury collisions resulting in 79 casualties. This represents a 64% reduction in the number of injury collisions on the Council road network from 189 in 2004; and a casualty reduction of 69% from 253 people killed or injured over the same ten year period. The decreases in both the Council-wide figures and on the Local Roads Authority network exceed the national casualty reductions.

### B9097 Collision and Casualty Data

#### Casualties by Location (East and West)

**2.1.4** Along the B9097 there have been a total of 4 reported injury collisions over the last five years (2011-2015) resulting in 6 casualties as shown in **Table 1**. There have been no fatalities on the B9097 during the reporting period. There was an even split of collisions with 2 occurring on the western section and 2 on the eastern section as shown in **Table 2**. One of the collisions resulted in a vehicle leaving the carriageway and coming to rest on private property outside the road boundary. The remaining three collisions involved one vehicle colliding with another and both coming to rest on the carriageway. Similar to the traffic survey data, the road collision analysis has been divided into east and west due to the different nature of the two parts of the road. The only serious injury occurred to the east of the M90.

Table 1	B9097 collisions and casualties (2011 -2015)			
	Fatal	Serious	Slight	Total
2011 collisions	0	0	1	1
2011 casualties	0	0	2	2
2012 collisions	0	1	1	2
2012 casualties	0	1	2	3
2013 collisions	0	0	1	1
2013 casualties	0	0	1	1
2014 collisions	0	0	0	0
2014 casualties	0	0	0	0
2015 collisions	0	0	0	0
2015 casualties	0	0	0	0
Total collisions	0	1	3	4
Total casualties	0	1	5	6

Table 2	B9097 East collisions and casualties (2011-2015)				B9097 West collisions and casualties (2011-2015)			
	Year	Fatal	Serious	Slight	Total by year	Fatal	Serious	Slight
2011 col	0	0	0	0	0	0	1	1
2011 cas	0	0	0	0	0	0	2	2
2012 col	0	1	1	2	0	0	0	0
2012 cas	0	1	2	3	0	0	0	0
2013 col	0	0	0	0	0	0	1	1
2013 cas	0	0	0	0	0	0	1	1
2014 col	0	0	0	0	0	0	0	0
2014 cas	0	0	0	0	0	0	0	0
2015 col	0	0	0	0	0	0	0	0
2015 cas	0	0	0	0	0	0	0	0
Total col	0	1	1	2	0	0	2	2
Total cas	0	1	2	3	0	0	3	3

### Casualties by Gender

**2.1.5** Casualty gender is shown in **Table 3**. Most collisions involved male drivers. In one collision a male driver swerved to avoid an animal in the road and collided with an oncoming female driver. The gender of one driver was not recorded. No data is available regarding the total number of male and female drivers using the road therefore, it is not possible to draw any conclusions from this data.

Table 3	B9097 East casualties by gender (2011-2015)				B9097 West casualties by gender (2011-2015)				
	Year	Fatal	Serious	Slight	Total M/F	Fatal	Serious	Slight	Total M/F
2011 M/F	0/0	0/0	0/0	0/0	0/0	0/0	0/0	1/0	1/0
2012 M/F	0/0	1/0	1/1	2/1	0/0	0/0	0/0	0/0	0/0
2013 M/F	0/0	0/0	0/0	0/0	0/0	0/0	0/0	1/0	1/0
2014 M/F	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0
2015 M/F	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0
Total M/F	0/0	1/0	1/1	2/1	0/0	0/0	2/0	2/0	

### Casualties by Age

**2.1.6** Road casualties for the B9097 are shown in **Table 4**. The available data shows that there was one Young Adult (18-25 years old) casualty and the other 4 were Adults (26+ year old). None of the people involved in collisions were Children (0-17 years old). There was no difference in the ages of casualties between the east and west sections of the B9097.

**2.1.7** There is no statistical evidence from either the Reported Road Casualty or Scottish Transport Statistics documents to suggest that Older Adults (60+ year old) are more at risk than any other age group. For this reason, Older Adults have been included within the general Adult category. However, issues relating to restricted mobility, slower reaction times and increased injury recovery times are a concern for older adult road users on all roads.

Table 4	B9097 casualties by age and location (East and West) (2011-2015)						
	Young Adult			Adult			Total
	18-25 years old			26+ years old			
	Year	Fatal	Serious	Slight	Fatal	Serious	Slight
2011	0/0	0/0	0/0	0/0	0/0	0/1	0/1
2012	0/0	0/0	1/0	0/0	1/0	1/0	3/0
2013	0/0	0/0	0/0	0/0	0/0	0/1	0/1
2014	0/0	0/0	0/0	0/0	0/0	0/0	0/0
2015	0/0	0/0	0/0	0/0	0/0	0/0	0/0
Total	0/0	0/0	1/0	0/0	1/0	1/2	3/2

#### Collisions by Vehicle Type

**2.1.8** Collisions by vehicle type are shown in **Table 5**. Cars make up approximately 89% of traffic on the B9097 both east and west. There was one collision involving a motorcycle on the eastern section of the B9097. Motorcycles comprised 1.4% of the traffic on the eastern section but appear in 50% of the collisions. This is significantly higher than the 4% national average. However, the number of collisions on the B9097 is too low for this statistic to be relevant. There were no collisions involving pedestrians, pedal cycles, commercial vehicles, agricultural vehicles or public service vehicles during the reporting period 2011 -2015.

Table 5	B9097 East casualties by vehicle type (2011-2015)			B9097 West casualties by vehicle type (2011-2015)		
	Position	No	%	National %	No	%
Cars / taxis	2	66	89	3	100	89
Motorcycles	1	33	4	0	0	4
Pedal cycles	0	0	2	0	0	2
L, O, HGVs	0	0	13	0	0	13
Buses	0	0	4	0	0	4
Other	0	0	7	0	0	7

#### Casualties by Road Position

**2.1.9** Casualties by road position are shown in **Table 6**. Cars make up 89% of the traffic on the B9097 and car users make up 83% of casualties. Motorbikes represent only 1.8% of the traffic on average over the entire route but motorcyclists represent 16.7% of casualties during the reporting period. Again, the low number of incidents along the route means this cannot be considered as being statistically relevant. In the collision between the motorbike and car, the rider was seriously injured but there was no injury to the driver of the car.



Table 6	B9097 East casualties by position (2011-2015)				B9097 West casualties by position (2011-2015)			
	Position	Fatal	Serious	Slight	Total	Fatal	Serious	Slight
Driver	0	0	2	2	0	0	2	2
Rider	0	1	0	1	0	0	0	0
Passenger front seat	0	0	0	0	0	0	1	1
Passenger back seat	0	0	0	0	0	0	0	0
Pedestrian	0	0	0	0	0	0	0	0
Cyclist	0	0	0	0	0	0	0	0
Total	0	1	2	3	0	0	3	3

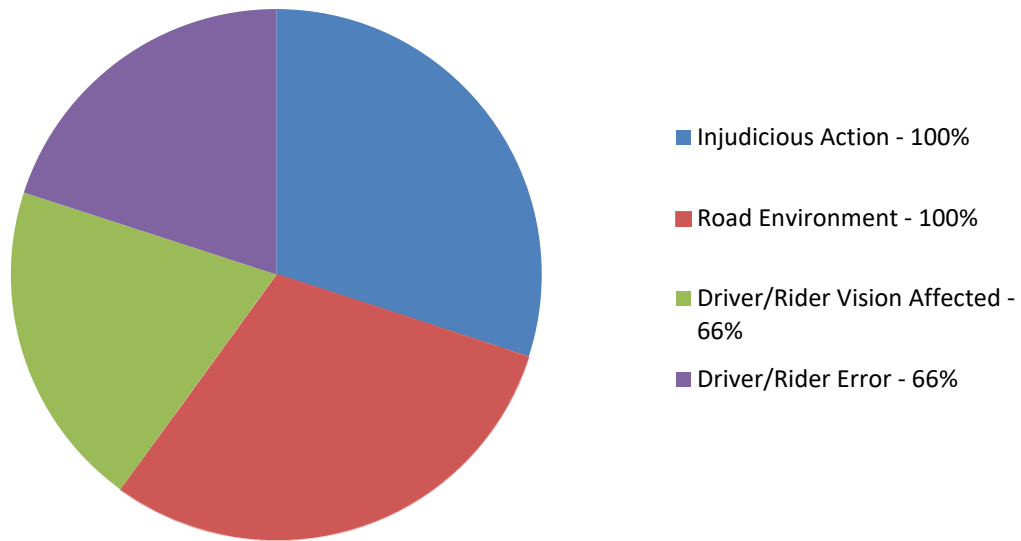
### Contributory Factors

**2.2.0** Police Scotland records up to four contributory factors which the reporting officer believes may have contributed to the collision. Most incidents involve more than one contributory factor which is why the total can exceed 100%. **Table 7** and **Chart 4** show the four categories from the Police reporting system that were used to report the contributory factors in each of the four traffic collisions from 2011 to 2015.

**2.2.1** There are too few collisions in this period to be establish any pattern or recurring problem. A total of ten contributory factors are listed but as each factor only appears once it is not possible to prioritise them. This also means that no correlation can be made with the national averages. Unfortunately, the contributory factors for the single serious collision on the eastern section have not been provided in the Police report. For the three collisions for which data was available, injudicious action and road environment were cited in each one and driver/rider vision affected and driver/rider error were cited in two of them.

Table 7	Main Contributory Factors	No B9097	% B9097	% category	Nat %
<b>Injudicious Action</b>	Travelling too fast for conditions	1	10	33	8
	Junction overshoot	1	10	33	2
	Failed to look properly	1	10	33	30
<b>Road environment</b>	Slippery road (weather)	1	10	33	2
	Road layout, e.g. bend, hill or narrow	1	10	33	1
	Animal or object in carriageway	1	10	33	1
<b>Driver/Rider vision affected</b>	Road Layout	1	10	50	2
	Rain/Sleet/Snow	1	10	50	3
<b>Driver/Rider error</b>	Junction Overshoot	1	10	50	2
	Failed to Look Properly	1	10	50	3

**Chart 4: Collision Contributory Categories**



#### **Collisions by Turning Manoeuvre**

**2.2.2** The road traffic collision reports supplied by Police Scotland include details of the turning manoeuvres undertaken by vehicles involved in crashes. These turning manoeuvres are shown in **Table 8**. As with the previous tables, the small number of collisions made it difficult to draw any conclusions from the limited data available. The only collision involving a turning vehicle occurred on the eastern section on the slipway with the M90 which is one of the few turning opportunities on the eastern section of the B9097. The western section contains public and private junctions. As a result, there are more turning opportunities on the western section. However, the lower traffic volume means the risk of such a turning movement is low. Over the five-year reporting period, there was only one collision caused by a driver trying to join the B9097 from one of the minor roads.

#### **Collisions by Weather Conditions**

**2.2.3** The collision reports also contain details of weather conditions which are shown in **Table 9**. Unfortunately, the weather conditions for the single serious collision on the eastern section of the B9097 have not been provided in the Police report. On the western section, one collision occurred during the hours of darkness, one on a wet road surface and one in ice or snow. The low number of reports means these weather conditions cannot be considered as statistically relevant.

Table 8	B9097 East collisions by manoeuvre (2011-2015)			B9097 West collisions by manoeuvre (2011-2015)		
	No	%	Nat %	No	%	Nat %
Right turn	1	50	8	0	0	8
Left turn	0	0	3	0	0	3
U turn	0	0	1	0	0	1
Overtaking	0	0	6	0	0	6
Going ahead	3	150%	73	2	100%	73
Going ahead on bend	0	0	14	1	50%	14
Stopping	0	0	4	0	0	4
Waiting to go ahead	0	0	9	0	0	9
Loss of control	0	0	21	0	0	21

Table 9	B9097 East collisions by weather (2011-2015)			B9097 West collisions by weather (2011-2015)		
	No	%	Nat %	No	%	Nat %
Dark with lights	0	0	10	0	0	10
Dark without lights	0	0	16	1	25	16
Adverse weather	0	0	22	0	0	22
Wet road surface	0	0	34	1	25	34
Snow or ice on road	0	0	10	1	25	10
Special conditions	0	0	2	0	0	2
Carriageway hazards	0	0	4	0	0	4

### Summary of Collision Data

**2.2.4** Each of the two sections has had two reported collisions in the five year reporting period. There have been no fatalities in the last five years and only one KSI (killed or seriously injured) collision. There are no accident cluster sites (three injury accidents in three years). Historically, there were cluster sites at Mawmill bend and Carsegour bend but these have been addressed (see PROPOSALS).

## **3.0 PROPOSALS**

### **40mph speed limit at Crook of Devon**

**3.1** To accommodate the Travellers' Site at Crook Moss, and the scattered community between Crook of Devon and Drum, it is recommended that the national speed limit on the first 800m of the B9097 is reduced to 40mph. Public consultation for a Traffic Regulation Order will commence in late 2016/17. If there is sufficient community support, the lower speed limit could be introduced before the end of 2017.

### **Prohibition of Entry at Drum**

**3.2** To discourage commercial traffic passing from the A977 to the B9097 through the U241 at Drum, it is recommended that vehicular access is restricted. A "Prohibition of Entry" is considered more appropriate than a "One-Way" system as it would have less impact on the local community. Public consultation for a Traffic Regulation Order will commence in late 2016/17. If there is sufficient community support, the prohibition could be introduced before the end of 2017.

### **Gelvan Moor Road direction signs**

**3.3** The village of Cleish is signed on the A977 at both the U221 and the B9097 junctions. The narrow U221 Gelvin Moor Road is unsuitable for commercial vehicles; and there is evidence of damage to the road edge, verge and roadside drainage caused by larger vehicles over-riding the verge. Visibility from the U221 onto the B997 is poor for large, slow-moving vehicles. It is recommended that the direction and advance direction signs for Cleish on the A977 approaching the Gelvin Moor Road junction are removed and that traffic is encouraged to use the larger junction at Crook of Devon. This project will be included in the Traffic & Network programme of works for 2017/18.

### **Warning signs between Crook of Devon and Woodend**

**3.4** There are a number of faded and damaged warning signs and chevron markers on the western section of the road. These signs should be renewed and, if necessary, relocated to ensure approaching drivers have sufficient warning of the hazards ahead and can adjust their speed and position accordingly. This project will be included in the Traffic & Network programme of works for 2017/18.

### **Green Route crossing at Easter Aldie**

**3.5** In response to the success of the Green Route, the number of cyclists and pedestrians crossing the B9097 continues to increase. Consideration is being given to the installation of a variable message sign displaying a road safety message near the crossing point. This would be activated by a push-button system operated by the cyclist or pedestrian rather than being triggered by the approaching vehicle. Vehicle-activated signs are permanently deployed along both urban and rural sections of the A977 so drivers in the area are familiar with this road safety feature. The project is at a preliminary stage and will be discussed with the Ward Councillors and local community representatives in due course.

### **Carriageway retexturing at Mawmill bend**

**3.6** At Mawmill bend, there had been a series of single vehicle crashes. A pattern had emerged of both east- and west-bound vehicles failing to negotiate the bend and leaving the carriageway during periods of heavy rain or on a wet road surface. Several years ago, the roadside drainage was improved, bend warning signs and chevron boards installed and the carriageway retextured to improve skid resistance. Since the introduction of these measures there have been no reported road traffic collisions.

### **Direction signs at Mawmill crossroads**

**3.7** As part of the work at Mawmill bend (see above), the direction and advance direction signs at the crossroads to the east of the bend were upgraded. This has provided approaching drivers with advanced notice of the likelihood of vehicles emerging onto the B9097 or preceding cars slowing down to turn off the B9097. There is increasing cycling activity between the Green Route at Coldrain and the National Cycle Network at Watergate, crossing the B9097 at Mawmill crossroads and passing through Cleish village. Similar to the site at Easter Aldie (see 3.5 above), consideration is being given to the installation of a variable message sign displaying a road safety message near the crossing point. This would be activated by a push-button system by the cyclist or pedestrian rather than being triggered by the approaching vehicle. The project is at a preliminary stage and will be discussed with the Ward Councillors and local community representatives in due course.

### **Craigton signage**

**3.8** "Pedestrian" warning signs with distance plates were recently installed approaching the scattered community at Craigton to notify drivers of the possibility of school pupils crossing the road to utilise the school bus services. Due to the limited frontage development, measures such as a reduced speed limit, village nameplates or vehicle-activated signs, are not considered appropriate at present.

### **Carriageway retexturing at Purliemuir bend**

**3.9** The road alignment at Purliemuir bend is similar to Carsegour (see 3.1.0 below) with higher eastbound speeds approaching a right-hand bend. Several years ago, bend warning signs, verge marker posts and chevron boards were installed and the carriageway retextured to improve skid resistance. Since the introduction of these measures there have been no reported road traffic collisions.

### **Carriageway retexturing at Carsegour bend**

**3.1.0** At Carsegour bend, there had been a number of eastbound vehicles leaving the carriageway. There was also evidence at the site of non-reported, damage-only incidents. In 2015, new flexible chevron boards were successfully trialled. In 2016, the carriageway was retextured to improve skid resistance. There is no reported collision history since these measures were installed.

### **Cycle path from Carsegour to Cleish Mill**

**3.1.1** To reduce the risk of conflict between cyclists on NCN1 and drivers proceeding along the B9097, investigation is being undertaken about the possibility of providing an off-road cycle path within the existing verge. This project is at a preliminary stage and will be discussed with the Ward Councillors and local community representatives in due course.

### **Reduced speed limit at Watergate**

**3.1.2** The road alignment and vehicle speeds past Cleish Mill and through Watergate satisfy the criteria for a lower speed limit. It is recommended that a 30mph speed limit and village nameplates are installed. Public consultation for a Traffic Regulation Order will commence in late 2016/17. If there is sufficient community support, the prohibition could be introduced before the end of 2017.

### **B996/B9097 junction signs**

**3.1.3** There had been a history of vehicle over-shoots at both junctions with the B996. As most incidents were damage-only, there were few collision reports. The direction signs and advance direction signs were replaced with larger lettering and increased reflectivity to provide approaching drivers with sufficient warning of the junctions ahead. Since the introduction of these measures there have been no reported road traffic collisions.

### **Blind summit at West Brackley**

**3.1.4** “Blind Summit” warning signs were recently installed at East Brackley. A second set of signs for the crest at West Brackley are included in the programme of works for 2016/17.

### **B920/B9097 junction island**

**3.1.5** It has been reported that the width of the junction and the absence of any signs in the central island encourages some drivers coming from Glenrothes to drive around the offside of the island. To deter this practice, a bollard with “Keep Left” arrow should be installed in the central island. This project will be included in the Traffic & Network programme of works for 2017/18.

## **4.0 CONCLUSION**

**4.1** There is no evidence of any significant traffic management or road safety issues on the B9097 in relation to traffic volumes, vehicle speeds, vehicle categories, road layout or environmental conditions. There is a low collision and casualty history; and travel patterns are similar to other local roads in the Council area.

**4.2** Traffic Regulation Orders will be progressed for a lower speed limit on the B9097 at Watergate and a Prohibition of Entry on the U241 at Drum. Direction and warning signs will be renewed and upgraded as necessary. Variable message signs will be considered at cycle crossing points.