

## 5.4 Disruption Due To Construction

### 5.4.1 Introduction

An assessment of disruption or impacts due to construction covers the effects on people and the natural environment, which occur between the pre-construction works and the end of the contract defects correction period. Construction impacts are not confined to construction of the road itself, but can also arise from advance works by service authorities for example. Impacts may also occur outside the area directly affected by the scheme, such as traffic diversions due to road works, causing associated air quality, traffic and noise impacts. Although construction effects are generally transient, they can be significant. To this end, it is important that nuisance and disturbance to the local community and vehicle travellers along this key transport corridor and the surrounding network are kept to a minimum.

### 5.4.2 Objectives

The objective is to undertake sufficient assessment to identify the possible disruption due to construction of the eleven route options within the three route corridors. At this stage, only a broad assessment is possible and, to this end, the route options which could involve significant disruption due to their proximity to population centres, or the possible need for bridge construction works or other intrusive construction processes are identified. This disruption can take various forms ranging from the obvious noise, vibration and dust through to impacts on wildlife and ecology.

### 5.4.3 Discussion

Disruption from noise and vibration due to the presence of heavy construction traffic could have significant effects on nearby residents. To this end, noise and vibration monitoring may be necessary during the construction period. DMRB indicates that studies have shown at least half the people living within 50 metres of a construction site boundary are seriously troubled by construction nuisance in one form or another, but beyond 100 metres, less than 20% of the people are seriously troubled. All route options would introduce disturbance from noise and vibration due to construction within their respective areas. At this stage it is evident that the central corridor, being closer to the ribbon development along the A6 corridor, would impact upon the greatest number of properties.

Undesirable impacts on air quality may arise from the creation of dust during earthworks and other operations such as jackhammering. Site fires are a potential nuisance and should be avoided where possible.

Each of the eleven proposed route options would create some degree of disturbance to vehicle travellers during the construction period. Traffic diversions and delays would have implications on driver stress and travel costs due to increased journey times.

Pollution and subsequent contamination of groundwater and adjacent watercourses is another major threat during construction, with a number of pathways available for pollutants to enter surface or groundwater from construction traffic and accidental spillage for example. As all route options would traverse the Moyola River, a designated Salmonid watercourse, protection from contamination incidents would be essential to maintain water quality. The designated Cyprinid and Salmonid waters of Lough Beg and the Lower River Bann tributaries must also be protected from any construction related pollution incidents.

Although journeys by cyclists and pedestrians are limited, at present, to along the A6 any such users would find their journey more difficult during the construction period. Also, pedestrians and cyclists that use the B and C class roads around the existing A6 are likely to find an increase in traffic on these roads as vehicles are diverted along them.

Other construction impacts include site-wide elements such as the location of storage areas and site huts. Stores of raw materials, borrow and fill, and site offices for example should not be placed in areas of ecological value or where loss of amenity is perceived. Site traffic entering and exiting the works have the potential to carry dust and dirt along the surrounding roads. It may therefore be necessary to provide wheel-washing facilities at site accesses. Short term environmental impacts, such as increased noise and vibration, and reduction in air quality would be created along planned diversion routes during the construction period.

#### North Corridor

The north corridor route options would involve considerable online construction between the Castledawson Roundabout and Hillhead Road junction. From here, the north corridor route options deviate northwards across open countryside, towards the new Toome bypass. The main disruption with these options would be associated with the large amount of online construction, involving traffic delays and potential temporary diversions. Where the north corridor route options traverse open countryside, they would impinge on three public rural roads, these are, the Brough Road, Deerpark Road and the Hillhead Road. There are also a number of private accesses, and minor roads severed by the alignment options

Route option 1 would traverse nine waterbodies including the Moyola River, two tributaries of the Moyola River, two tributaries of the Lower Bann, two tributaries of Lough Beg and two small lakes north-northeast of The Creagh at the southern edge of Lough Beg. This is the highest number of watercourses crossed by any of the route options considered. Because of the designated ecological sensitivity of these waterbodies, and the effects that construction related accidents and spillages could have on water quality, their protection would be paramount. Options 2 and 3 would cross the same watercourses as option 1, except for the two tributaries of the Lower Bann and the two small lakes south of Lough Beg.

#### Central Corridor

All central corridor route options involve online construction from the Castledawson Roundabout to the Hillhead Road junction. The online route option 5 would involve carriageway widening along its entire length, causing considerable disruption. Route option 4 would involve construction of a new offline carriageway from the Hillhead Road junction to the new roundabout at the western end of the Toome bypass, aligned parallel and slightly north of the existing A6. Options 6 and 7 would involve construction of new offline carriageways deviating southwards to varying extents from the Hillhead Road junction. Most of the disruption associated with these options would arise from the online construction and at tie-in locations. As the central corridor is focused around the online option, impact on the minor rural roads would not be as significant as the north and south corridors, and disruption would be concentrated predominantly around the tie-ins of these roads with the new dual carriageway. With the route options in this corridor traversing north and south of the existing A6, side roads affected include the Deerpark Road, Old Bann Road, Blackpark Road and Creagh Road. There are also a number of private accesses, and minor roads severed by the alignment options

All central alignment options would traverse four watercourses, albeit at slightly different locations. These are the Moyola River, two tributaries of the Moyola River and one tributary of Lough Beg. The central corridor would affect the least number of watercourses throughout the scheme.

#### South Corridor

Route options 8, 10 and 11 would involve online widening from the Castledawson Roundabout to just before the Hillhead Road junction. From this point the route options deviate south by varying amounts. Alignment options 8 and 10 would tie-in to the new roundabout at the western end of Toome bypass, with option 11 tying into Toome bypass at the Hillhead Road West priority junction. Alignment option 9 would involve the construction of almost an entirely new offline carriageway between Castledawson and Toome, with

approximately 200 metres of online construction near Castledawson Roundabout, causing the least amount of disruption to strategic traffic.

Disruption would be most severe along the online section of the routes and at tie-in locations. Where the south route options traverse open countryside, they cross a number of public minor rural roads including the Blackpark Road, Creagh Road, Bellshill Road and Annaghmore Road.

All south route options would traverse four watercourses at different locations, the Moyola River, two tributaries of the Moyola River and one tributary of Lough Beg. Alignment option 11 however, being the most southern option and coming offline sooner, would cross a minor tributary of Lough Beg near the Toome Bypass Roundabout.