

## 5 ENVIRONMENTAL ASSESSMENT

### 5.1 Introduction

Chapter 5 of the Randalstown to Toome Dualling Stage 1 Report outlines the environmental conditions of the study area, covering assessment of air quality, cultural heritage, disruption due to construction, ecology and nature conservation, landscape and visual effects, land use, traffic noise and vibration, pedestrian and community effects, vehicle travellers, water quality and drainage, geology and soils, as well as policies and plans.

### 5.2 Air Quality

A preliminary assessment of the likely impacts on air quality in the study area was carried out during Stage 1 and was reported in chapter 5.2 of the Stage 1 Report.

| Route Option | Roadside – 50m | 50 – 100m | 100 – 150m | 150 – 200m | TOTAL |
|--------------|----------------|-----------|------------|------------|-------|
| 9            | 3              | 8         | 15         | 11         | 37    |
| 10           | 11             | 30        | 15         | 9          | 65    |

Option 9 has approximately 37 properties within 200m, of which only 3 are within 50 metres. In this regard, it would have the third lowest number of properties within 200m of all the Route Options under consideration.

Option 10 has approximately 65 properties within 200m, of which approximately 11 are within 50 metres. In this regard, it would have the highest number of properties within 200m, of all the Route Options under consideration, although still marginally lower than the existing route, which currently has approximately 73 properties within 200m. Moneynick Primary School, regarded as being a sensitive location, would still be within 100 metres of the proposed alignment.

### 5.3 Cultural Heritage

A preliminary assessment of the likely impacts on cultural heritage in the study area was carried out during Stage 1 and has been reported in chapter 5.3 of the Stage 1 Report. The proposed Route Options are assessed in relation to their potential impact on industrial heritage, archaeological heritage and built heritage, the locations of same are shown on Figure 5.3.1 within the Stage 1 Report.

#### 5.3.1 Industrial Heritage

Option 9 would not directly affect any industrial heritage sites.

Option 10 would directly affect a Flax Mill site, situated on the Artlone Road.

#### 5.3.2 Archaeological Heritage

Option 9 would directly affect an 'Enclosure', situated to the west of the Artlone Road. It would also affect a possible archaeological site, recorded from aerial photography and classed as being a 'Circular Enclosure', between the northern end of Drumaslough Hill and the Gloverstown Road.

Option 10 would not directly affect any archaeological heritage sites, although it would come within approximately 50 metres of a site classed as being an 'Enclosure' at Drumcullen, to the immediate south of the Moneynick Road.

### 5.3.3 Built Heritage

No built heritage sites would be directly affected by either of the Route Options.

## 5.4 **Disruption due to Construction**

A preliminary assessment of the likely impacts during construction in the study area was carried out during Stage 1 and has been reported in chapter 5.4 of the Stage 1 Report.

Option 9 would cause disruption to strategic traffic, as it would cross the existing A6 west of the Moneyrod Road junction. It would also cross a significant number of minor roads, both north and south of the existing A6. Apart from this, Option 9 would cause only limited disruption, as it remains completely off-line between Randalstown and Toome.

Option 10 would cause considerably more disruption to strategic traffic. Not only would it cross the existing A6 to the immediate west of Greenan Road Junction, but it would also entail on-line widening of the A6 from the Ballynafey Road, westwards to Toome. In this regard, it would be similar to the disruption caused by Option 3.

## 5.5 **Ecology & Nature Conservation**

A preliminary assessment of the likely impacts on ecology in the study area was carried out during Stage 1 and has been reported in chapter 5.5 of the Stage 1 Report.

Option 9 would remain completely off-line and results in significant habitat loss associated with its alignment, largely in the form of maturing hedgerows and small pockets of woodland. As with the other Route Options, approximately four minor watercourses would be traversed.

As Option 10 is largely on-line, the degree of habitat loss and habitat severance is significantly reduced, although there would still be the loss of hedgerows bounding the existing A6. As with the other Route Options, approximately four minor watercourses would be traversed.

## 5.6 **Landscape & Visual Effects**

A preliminary assessment of the likely impacts on the landscape in the study area was carried out during Stage 1 and has been reported in chapter 5.6 of the Stage 1 Report.

Option 9 remains completely off-line and would therefore be more visually intrusive into the landscape. As the topography to the north of the A6 is more undulating than to the south, consisting largely of rolling drumlin countryside, there would be a significant amount of earthwork cuttings and embankments associated with the alignment, particularly between Aghaloughan Road and Lismaclouskey Road.

Although Option 10 is largely on-line and therefore less visually intrusive, it is off-line to the north of Moneynick, increasing its visual intrusion. The alignment would also necessitate a large cutting into the southern slope of Drumaslough Hill.

## 5.7 Land Use

A preliminary assessment of the likely impacts on land use in the study area was carried out during Stage 1 and has been reported in chapter 5.7 of the Stage 1 Report. The proposed Route Options were assessed in relation to their potential impact on private property, development land, agricultural land and restoration proposals for abandoned waterways.

### 5.7.1 Potential demolition of private property and associated landtake

| Route Option | Residential Properties | Commercial Properties | Farms    | TOTAL |
|--------------|------------------------|-----------------------|----------|-------|
| 9            | 3                      | 0                     | 1 (shed) | 4     |
| 10           | 9                      | 0                     | 0        | 9     |

Option 9 would result in the loss of three residential properties and one agricultural shed. The affected residential properties are: 1 on the Aghaloughan Road; 1 off a laneway north of Derryhollagh Road and 1 to the immediate east of the junction of Lismacloskey Road with Gloverstown Road. The agricultural shed affected is to the west of Artlone Road. The total number of properties affected would be the same as Option 2, also within the North Corridor.

Option 10 would result in the loss of 9 residential properties. The affected residential properties are: a cluster of 4 on the Moneynick Road and east of the Primary School; 1 on Derryhollagh Lane; 1 north of the Moneynick Road and west of the Primary School; and 3 off the Artlone Road. The total number of properties affected by Option 10 would be the lowest of the Central Corridor options.

### 5.7.2 Potential Effect on Planning Applications

| Route Option | No. of properties submitting planning applications | Planning Applications |                  |
|--------------|--|-----------------------|------------------|
|              |  | Approved              | Pending decision |
| 9            | 1  | 1                     | 0                |
| 10           | 4  | 3                     | 1                |

The planning application information referred to in this Addendum Report has been extracted from the 'Planning On-Line' website.

Option 9 would impact on 1 approved planning application. The approved planning application is for a new dwelling and garage adjacent to 51 Derryhollagh Road. In this regard, it would be similar to Options 5 in the Central Corridor.

Option 10 would directly impact on 3 recently approved planning applications and 1 which is pending decision. The approved applications include: change of building use at Moneynick Service Station; an extension to a site at the junction of Lismacloskey Road with Moneynick Road; and a porch and domestic garage on the Moneynick Road between Derryhollagh Road and the Primary School. The potentially affected pending application is for a new chalet bungalow at the same location.

### 5.7.3 Potential Loss of Agricultural Land

Option 9 would affect a significant amount of agricultural land, as it is entirely off-line between Randalstown and Toome. Similarly, there would be a significant loss of land classified as being Best & Most Versatile (BMV) between Randalstown and a point just west of the Lismacloskey Road, the only areas of non-BMV land being those associated with the minor watercourses that would be traversed.

The degree of agricultural land loss associated with Option 10 would be less, as it largely widens of the existing road between Ballynafey Road and Toome. Nevertheless, there would be significant agricultural land loss between Randalstown and the Ballynafey Road, as it is largely off-line. There would also be a significant loss of BMV land between Randalstown and Drumcullen.

#### 5.7.4 Potential Severance of Agricultural Land

As noted in the main Stage 1 Report, at this stage in the assessment procedure, it is too early to determine how many individual farm units would be severed as a result of the proposed scheme. Nevertheless, it is anticipated that Option 9, being completely off-line between Randalstown and Toome would result in a significant degree of severance of farm units, having a subsequent knock-on effect on their overall financial viability. In the case of Option 10, the degree of farm unit severance is likely to be significantly reduced, as it is much closer to, and in some cases straddles, the existing linear feature of Moneynick Road.

### 5.8 **Traffic Noise & Vibration**

A preliminary assessment of likely impacts of noise in the study area was carried out during Stage 1 and has been reported in Chapter 5.8 of the Stage 1 Report.

| Route Option | Roadside – 100m | 100 – 200m | 200 – 300m | TOTAL |
|--------------|-----------------|------------|------------|-------|
| 9            | 11              | 26         | 36         | 73    |
| 10           | 41              | 24         | 30         | 95    |

Option 9 has approximately 73 properties within 300m, of which only 11 are within 100 metres. In this regard, it would have the second lowest number of properties within 300m of all the Route Options under consideration.

Option 10 has approximately 95 properties within 300m, of which approximately 41 are within 100 metres. In this regard, it would have the highest number of properties within 300m, of all the Route Options under consideration, and similar to the existing route, which currently has approximately 94 properties within 300m. Moneynick Primary School, regarded as being a sensitive location, would still be within 100 metres of the proposed alignment.

### 5.9 **Pedestrian, Cyclist, Equestrian and Community Effects**

A preliminary assessment of likely impacts on pedestrians and the local community in the study area was carried out during Stage 1 and has been reported in Chapter 5.9 of the Stage 1 Report.

No additional information is required for Options 9 and 10, to that already contained within the report for the eight original options.

### 5.10 **Vehicle Travellers**

A preliminary assessment of likely impacts on vehicle travellers in the study area was carried out during Stage 1 and has been reported in Chapter 5.10 of the Stage 1 Report.

No additional information is required for Options 9 and 10, to that already contained within the report for the eight original options.

## **5.11 Water Quality & Drainage**

A preliminary assessment of likely impacts on water quality and drainage in the study area was carried out during Stage 1 and has been reported in Chapter 5.11 of the Stage 1 Report.

No additional information is required for Options 9 and 10, to that already contained within the report for the eight original options.

## **5.12 Geology & Soils**

A preliminary assessment of likely impacts on geology and soils in the study area was carried out during Stage 1 and has been reported in Chapter 5.12 of the Stage 1 Report.

No additional information is required for Options 9 and 10, to that already contained within the report for the eight original options.

### **5.12.1 Soils**

Similar to Options 1 and 2, Option 9 would largely traverse basalt till, although it would fringe on an area of peat near the Derryhollagh Road. It would also traverse three lenses of alluvium, associated with the minor watercourses. Between a point just west of the Ivy Burn and the Drumderg Roundabout, Option 9 would traverse an area of surface water gleys, resulting in poor drainage.

Option 10 would traverse similar soil types to that of Option 3 contained within the Randalstown to Toome Dualling Stage 1 Report.

### **5.12.2 Contaminated Land**

Option 9 would avoid all known or potentially contaminated land within the study area.

Option 10 would affect similar sites to those affected by Option 3. It may affect the potentially contaminated land associated with the site of a disused filling station located at Carson's piano and furniture showroom on the Moneynick Road, classified as having a 'high' risk of contamination. It may also affect the potentially contaminated land associated with a former textile site on the Artlone Road, just north of Moneynick, classified as having a 'low' risk of contamination. This option would also pass close to, though not directly impact on, the site of the Moneynick Filling Station, classified as having a 'high' risk of contamination.

## **5.13 Policies & Plans**

A preliminary assessment of likely impacts on policies and plans in the study area was carried out during Stage 1 and has been reported in Chapter 5.13 of the Stage 1 Report.

No additional information is required for Option 9 and 10, to that already contained within the report for the eight original options.