

8. Land Use

8.1 Introduction

8.1.1 The purpose of this chapter is to identify potential impacts arising from the Scheme on land use, and to assess the significance of these impacts. The Scheme may give rise to impacts through the loss of land for a particular use, known as land take. This can be of a temporary or permanent nature.

8.2 Approach and Methods

8.2.1 The methodology was undertaken with reference to the DMRB (Vol. 11) Part 6 (Land – Use). A Stage 3 level of assessment is required for inclusion within an Environmental Statement. The methodology used to assess the effects of the Scheme on land-use is described in Table 8.1.

Table 8.1: Land-Use Assessment Methodology

Methodology Stage	Process
Collection of baseline data	A desktop study was the initial method of data collection. Documents referred to include the applicable Development Plans for assessing current and future land-use designations, with a site visit undertaken in May 2006 to evaluate the present land-use throughout the Scheme.
Identification of potential land-take	Comparison of the Scheme design with land-use maps outlined the extent of potential land-take.
Consultation	Consultation was required to assess the Planning Service's view on any potential effects of the Scheme on current and future land-use designations.

Level of Impacts

8.2.2 Using the guidance from DMRB (Vol.11), the magnitude and importance of impact can be described as shown below in Tables 8.2 and 8.3 respectively.

Table 8.2: Magnitude of Impact

Magnitude	Criteria
Severe	The Scheme will result in the permanent land-take of existing beneficial land-uses, the severance of beneficial uses or prevent the development of designated BMAP/Area Plans sites/proposals.
Moderate	The Scheme will result in the permanent land-take of existing land-uses of a less beneficial nature and will impact upon future development of designated BMAP/Area Plans sites/proposals.
Slight	The Scheme will require temporary land-take, or cause temporary severance issues.
Negligible	Barely perceptible changes.

Table 8.3: Importance of Impact

Magnitude	Criteria
High	Existing beneficial land-uses.
Medium	Designated BMAP/Area Plans sites/proposals with developer interest.
Low	Existing land-uses of a less beneficial nature.
Negligible	Designated BMAP/Area Plans sites/proposals with no developer interest.

8.2.3 The DMRB (Vol. 11) does not describe how the significance of impact should be scaled with regard to land-use. Therefore, Table 8.4 outlines a suggested means of assessing the significance of impact for land-use by combining the scales of magnitude and sensitivity.

Table 8.4: Significance of Impact Effects. (Effects falling within shaded boxes are considered to be significant)

Magnitude	High	Medium	Low	Negligible
Sensitivity				
High	Substantial	Moderate	Minor	Negligible
Medium	Moderate	Moderate	Minor	Negligible
Low	Minor	Minor	Negligible	Negligible
Negligible	Minor	Negligible	Negligible	Negligible

8.2.4 Three rounds of consultation have been undertaken as part of the assessment process with the first requesting information from statutory and non-statutory consultation bodies regarding comments for the Stage 1 Report. The second round of consultation sought feedback on the Stage 2 Report, and the third round of consultation asked for comments relating to the A2 Shore Road Greenisland Scoping Report. The Northern Ireland Planning Service were included as part of this consultation exercise, and as a result information relating to approved planning permissions within the study area has been provided.

8.2.5 No specific information was provided in response to the second round of consultation relating to the Scheme's effect on land use.

8.2.6 The information regarding planning permissions reported in Appendix B was obtained from the Planning Service website.

8.3 Baseline Conditions

8.3.1 The assessment of baseline conditions has been undertaken with respect to specific assessment years. These are:

- Existing Situation – No Proposal (06NP)
- Planning Year – No Proposal (10NP)
- Future Baseline – With Proposal (25WP)

- Future Baseline – No Proposal (25NP)

8.3.2 The Scheme will impact on a number of land uses. The baseline study indicates the type and location of these land-uses, and the extent to which they exist. Through consultation, scoping studies and site visits, it was established that the prominent land uses in the study were residential, agricultural, and commercial as noted below.

Existing Situation – No Proposal (06NP)

Residential

8.3.3 There are a large number of residential properties (737) in close proximity of the Scheme on each side of the existing A2 alignment along Shore Road. Some of the properties are immediately adjacent to the A2, and are likely to lose part of their gardens and/or be demolished due to the Scheme alignment. Ravenhill Care Home is located at the eastern end of the study corridor at Seapark.

Agricultural

8.3.4 The majority of the land to be occupied by the new off-line section of the Scheme alignment is agricultural land used predominately for grazing. The Land Quality is generally 3B, improved grassland. The Agricultural Land Classification (ALC) produced by DEFRA describes land graded as 3B as 'moderate', and subsequently does not fall into the category of 'best and most versatile agricultural land' which is land graded as 1, 2 and 3A. The field boundary consists mainly of hedgerows.

Commercial

8.3.5 There is a Spar convenience store on the A2 Shore Road, which includes an ancillary Russell Cellars off-licence.

Institutional

8.3.6 There is a Civil Service Institute on the site of the former tobacco factory at the eastern end of the study corridor area at Seapark.

8.3.7 There are a number of educational establishments within the study corridor area. The University of Ulster, Belfast High School and Rosstulie Special School are situated at the western section of the study corridor in Jordanstown. Silverstream Primary School is located at Greenisland. A nursery is located at the eastern end of the study corridor at Seapark.

8.3.8 There are two Churches and a Convent located within study corridor. St Colman's Roman Catholic Church, Ebenezer Chapel and Rathmore Convent are all located in close proximity to each other at Greenisland.

Recreational/Open Land

8.3.9 There are a number of recreational facilities linked to the educational establishments within the confines of the study corridor. Both the University of Ulster and Belfast High School have a number of playing fields and tennis courts within their premises.

8.3.10 Loughshore Park is located between A2 Shore Road and Belfast Lough at the western section of the study corridor.

Planning Year – No Proposal (10NP)

8.3.11 It is not anticipated that there will be any significant changes to the land use framework within this timescale, although development of the four housing sites (MNY04/02,

GD03/02 GD05/01 and GD05/11) in the Newtownabbey and Greenisland area may occur within this time period. It is probable that some of the planning applications listed in Appendix B may be implemented by 2010. Slight changes may also occur in the agricultural land use through crop rotation or farm operations.

Future Baseline – No Proposal (25NP)

8.3.12 In this scenario, it is likely that the four housing development sites referred to as MNY04/02, GD03/02 GD05/01 and GD05/11 will have been completed, due to local demand for housing, and that any planning permissions for residential properties granted prior to 2006 will be built.

8.3.13 Without the Scheme, there would be no requirement for the demolition of twelve residential properties and the Spar shop, and land take from 68 residential gardens. The residential properties that will incur land take from their gardens are included in Chapter 5 – The Proposed Scheme in Table 5.1 - Impact on Property Access, and are listed within the Access Modified category of this table, and also include 106 and 108 Shore Road.

8.3.14 The following properties would be demolished:

- 6 Shore Road
- 8 Shore Road
- 12 Shore Road
- 14 Shore Road
- 16 Shore Road
- 18 Shore Road
- 20 Shore Road
- 22 Shore Road
- 24 Shore Road
- 26 Shore Road
- 34 Shore Road
- 112 Shore Road
- Spar shop

Future Baseline – With Proposal (25WP)

8.3.14 There will be a major addition to the local land use framework 15 years after the year of opening with the Scheme. This will result from the implementation of the proposed recreational/mixed use development Ref. PDA 6/18 and the two identified housing sites in Newtownabbey and Greenisland (Ref MNY04/02, GD03/02 GD05/01 and GD05/11) in the Belfast Metropolitan Area Plan.

8.3.15 It is assumed that these developments will be completed 15 years after the planning year with the Scheme potentially acting as a catalyst for future development. There are a number of planning applications for residential properties in the Greenisland area

close to the A2, which have been granted outline and full planning permission that may be developed prior to the commencement of the Scheme. These are listed in Appendix B.

8.4 Predicted Impacts

8.4.1 Environmental effects on land use will be experienced during both the construction and operational phase of the development, with impacts being both permanent and temporary. Likely impacts are:

- Temporary land take for construction works;
- Permanent land take for the new road alignment; and
- Impacts on future land use designations.

8.4.2 Construction and operational effects on land use are highlighted below, with a subsequent section describing the significance of these environmental effects.

Construction

8.4.3 Temporary land-take will be required for the construction process, as a site(s) will be required for the contractor's compound. This will ideally be adjacent to the proposed new alignment and have good access from the existing road network. The contractor will determine the precise location of the construction compound.

8.4.4 Other than this effect, there will be very little scope for temporary land take as it is assumed that construction work at specific locations will be undertaken within the boundary of permanent land take.

Operational

8.4.5 The operational effects on land-use within the study area relate to the permanent land take that will be required for the development of the Scheme, or when there are instances of permanent severance as a result of access closures. Comparing the boundary of the development with the land use characteristics allows a calculation of the potential permanent land take to be approximated. The extent of permanent land take can be seen in Table 8.5. Part of the farmland at Jointure Bay Stream will incur permanent severance and require a new access.

8.4.6 Impacts should be assessed separately during the construction and operation phases and should cover direct effects as well as any indirect, secondary, cumulative, short, medium or long-term, permanent and temporary, positive or negative affects.

8.4.7 Table 8.5 below reports the likely permanent land take by land use type.

Table 8.5: Permanent Land Take (continued over)

Land Use	Area (Approx)	Purpose
Residential	1.9 ha 12 housing units demolished	Road Realignment
Agricultural	4.58 ha	Road Realignment
Commercial	0.11 ha 1 commercial unit demolished	Road Realignment

Open Space	0.98 ha	Road Realignment
Institutional e.g. Belfast High School	0.81 ha	Road Realignment

8.4.8 The significance of the environmental effects on land use is reported below in Table 8.6.

Table 8.6: Significance of Effects

Feature	Potential Impact/effect	Magnitude of Impact	Sensitivity/Importance of Receptor	Significance of impact
Construction				
Residential land required for works compound(s)	Temporary land take (land area not yet known)	Moderate	Slight	Negligible
Agricultural land required for works compound(s)	Temporary land take (land area not yet known)	Slight	Negligible	Negligible
Operation				
Residential land take	Permanent land-take of residential properties.	Severe	High	Substantial Adverse
Agricultural land take	Permanent land-take of low-grade agricultural land.	Moderate	Low / Medium	Moderate Adverse

8.5 Mitigation

8.5.1 Where severance issues occur during construction, appropriate measures should be taken to ensure that access to residential properties and farm holdings is maintained whenever possible, or alternative access arrangements should be provided.

8.5.2 Where land take and property demolition will occur, during both construction and operation, compensation will be required, which will be dependant on the type and scale of land-use lost.

8.6 Residual Impacts

8.6.1 There will be no significant residual impacts in terms of the effects of the Scheme on land use, as compensation will have been provided as mitigation where appropriate. There will be no significant issues as a result of permanent severance as alternative access provision will be provided. More details regarding impacts on access are reported in Chapter 16 – Pedestrians, Cyclists, Equestrians and Community Effects.

8.7 Summary

- 8.7.1 The effects of the Scheme on land uses are predominantly related to land take issues, both of a temporary and permanent nature. Where adverse effects are highlighted, suitable mitigation measures are prescribed, which are likely to include the provision of compensation measures.
- 8.7.2 Temporary land-take will be required for a period of around 24 months for the purpose of a construction compound. Further details can be found in Chapter 18 – Disruption Due to Construction.
- 8.7.3 Permanent land-take is required which will affect both residential and agricultural uses. Compensation measures will be required for permanent land loss.

8.8 References

- Design Manual for Roads and Bridges, Volume 11, Environmental Assessment. Department of the Environment for Northern Ireland et al (August 1994, as amended up to August 2006).
- Department of the Environment and Rural Affairs, Agricultural Land Classification:<http://www.defra.gov.uk/farm/environment/land-use/pdf/alcleaflet.pdf>
- Draft Belfast Metropolitan Area Plan 2015. The Planning Service. (Plan Amendment Number 1, February 2006).
- Information about applications for Planning Application. The Planning Service.http://www.planningni.gov.uk/Devel_Control/council_schedules/schedules.htm