

Bexhill to Hastings Link Road

Chapter 7: Agriculture and Forestry

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Appendix 7-A Agricultural Land Classification provided by DEFRA

Appendix 7-B Bexhill to Hastings Link Road Stage 2: Soils and Agricultural Land Classification prepared by RPS, July 2006

Appendix 7-C Bexhill to Hastings Link Road: Soils and Agricultural Land Classification prepared by LANDLOOK

Appendix 7-D Bexhill to Hastings Link Road: Farming Circumstances prepared by Kernon Countryside Consultants

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Figure 7.1 Farm Boundaries

7.1 Introduction

7.1.1 This chapter assesses the potentially significant environmental impacts of the Scheme on agriculture and forestry. The history and design of the proposed Scheme is described in detail in Chapters 1 to 4 of this Environmental Statement (ES). The assessment of agriculture and forestry below follows the approach of the Government's Design Manual for Roads and Bridges (DMRB), Volume 11, Section 3 *Environmental Assessment Techniques*, Part 6 Land Use. Accordingly, this chapter covers the following topics:

- Agricultural Land Quality and Designated Agricultural Areas; and,
- Agricultural Holdings;

7.1.2 This approach is consistent with planning policy guidance set out in Planning Policy Statement (PPS) 7, and Development Plan policy, as described in Chapter 5: Policy and Planning. Additional considerations included in the DMRB Land Use Chapter are considered in Chapter 15: Social and Community Effects. These include:

- Demolition of Private Property;
- Loss of Land Used by the Community; and,
- Impacts on Development Land.

7.2 Method of Assessment

7.2.1 This part of the chapter sets out a methodology for collecting relevant data, consulting with appropriate statutory organisations, and defining how 'significance' is to be weighted in the assessment. It also describes any assumptions that are made in the absence of detailed information, as well as identifying any technical difficulties that were encountered during the study.

7.2.2 Agriculture in the United Kingdom, and in the rest of Europe, is going through a period of considerable reform. Consequently, the Government's policy for rural areas, and the way in which this should be reflected in the land use planning system, is under review. Therefore, this section summarises relevant legislation and planning policy in order to provide an up-to-date context for this land use assessment.

European and National Legislative and Policy Context for this Assessment

7.2.3 The European Union's (EU) Common Agricultural Policy (CAP) has been significantly reformed. These reforms have been translated in to a new legislative regime in England, which came into effect on 1st January 2005. The reform of the EU CAP in England has resulted in ten existing major CAP payment schemes being replaced by one new single payment. It is intended that this will allow farmers greater freedom to respond to the needs of the market, as the new subsidy is decoupled from the production of food. This forms part of the Government's *Strategy for Sustainable Farming and Food* and, in order to receive subsidy, farmers will be required to meet certain cross-compliance conditions (i.e. meet statutory and best practice management requirements for

the environment (i.e. air, water and soil), including nature conservation, cultural heritage and the landscape/countryside).

PPG7 and PPS7

7.2.4 Planning Policy Guidance (PPG) 7 for the countryside has been replaced by Planning Policy Statement 7 *Sustainable Development in Rural Areas* (PPS7), which came into effect in August 2004. The PPS7 summarises the role of the planning system in the maintenance of the countryside resource as follows:

“Whilst much of the land use activity in the countryside is outside the scope of the planning system, planning has an important role in supporting and facilitating development and land uses which enable those who earn a living from and help to maintain and manage the countryside, or continue to do so.” (paragraph 14)

7.2.5 The policy with regards to the ‘best and most versatile’ land is stated as follows:

“The presence of the best and most versatile agricultural land (defined as grades 1, 2 and 3a of the Agricultural Land Classification), should be taken into account alongside other sustainability considerations (e.g. biodiversity; the quality and character of the landscape; its amenity value or heritage interest; accessibility to infrastructure; workforce and markets; maintaining viable communities; and the protection of natural resources, including soil quality) when determining applications.” (paragraph 28)

7.2.6 The assessment of the quality of the land therefore forms only one element to be considered together with a wide range of other features in the overall management of the countryside. This policy reflects the continuing shift in government policy since the mid-80s towards the incorporation of farming into the broader stewardship of the countryside and the integration of environmental schemes into a whole farm based approach.

Relevant Development Plan Policies

7.2.7 Planning policy is dealt with comprehensively in Chapter 5 of this ES. With regard to development involving agricultural land, relevant planning policy is set out in the following Development Plan documents:

- East Sussex and Brighton & Hove Structure Plan 1991-2011 (Adopted in December 1999 (re Policies 10e and E19);
- Rother District Local Plan Adopted July 2006 (re Policy PG1 (xiv); and,
- Hastings Local Plan 2004.

7.2.8 The Rother District Local Plan contains the Planning Strategy for Bexhill and includes proposals for north-east Bexhill, through which the Scheme alignment runs to provide “*the basis for sustainable long term growth*”. These proposals include :

- *“The creation of a robust, long term urban edge, with development contained from the wider countryside setting;*
- *High quality business sites;*
- *The creation of new and expanded residential communities; and,*
- *Establishment of a proposed Pebsham Countryside Park between Bexhill and Hastings that not only serves as a recreational resource for the two towns, but also provides for the long-term management of the strategic gap and the rural fringe all the way round to Sidley.”*

7.2.9 Guided by PPS7, relevant development plan policy (i.e. Policy PG1 (xiv) of the Rother District Local Plan, July 2006) indicates that low quality agricultural land, namely land which falls within Ministry of Agriculture, Fisheries and Food (MAFF) Agricultural Land Classification (ALC) grades 3b, 4 and 5 should be developed in preference to high quality land - except *“where this is inconsistent with other sustainability considerations”*.

7.2.10 Paragraph 29 of PPS7 states that it is for local planning authorities, in this case Rother District Council and Hastings Borough Council, to decide if *“best and most versatile agricultural land”*, i.e. land in MAFF ALC grades 1, 2 or 3a, can be developed *“having carefully weighed the options in the light of competent advice”*.

Sustainable Use of Soil

7.2.11 Opportunities for safeguarding and reusing soils on-site as a vital resource for future generations are considered in this assessment. This follows the approach of The Royal Commission on Environmental Pollution’s 19th Report *Sustainable Use of Soil* published in 1996 and, more recently, a move towards an EU *Thematic Strategy for Soil Protection, 2002*, Department for Environment, Food and Rural Affairs *First Soil Action Plan for England 2004-2006*, and the Environment Agency’s soil strategy *Soil: The Hidden Resource, 2004*.

Agricultural Holdings

7.2.12 Annex B of PPG7, which considered impacts on local farms (such as farm size and structure, etc), has been repealed and has not, therefore, been carried through into PPS7. However, as described earlier in this chapter, consideration of agricultural holdings is still necessary under DMRB 11, Section 3, Part 6. Of relevance to this study, PPS7 sets out four Government objectives for rural areas. With regard to agriculture, the objective is: *“To promote sustainable, diverse and adaptable agricultural sectors, where farming achieves high environmental standards, minimising impact on natural resources, and manages valued landscapes and biodiversity; contributes both directly and indirectly to rural economic diversity; is itself competitive and profitable; and provides high quality products that the public wants.”*

Consultation

7.2.13 MAFF was refocused and subsumed in the Department for Environment Food and Rural Affairs' (DEFRA) in 1997. DEFRA's Rural Development Service (RDS) was consulted as part of this assessment in order to determine what, if any, detailed ALC data is available for the Scheme study area. Information provided by DEFRA is given in Appendix 7-A, and is summarised under 'Existing Conditions' below. In addition, consultation has taken place with landowners affected by the Scheme.

Desk-Top Studies and Site Investigations: Agricultural Land

7.2.14 Two desktop studies have been undertaken for Scheme assessment purposes. RPS have undertaken a desktop assessment of the entire Scheme study area in 2006 and this is attached as Appendix 7-B.

7.2.15 In addition, LANDLOOK have included desktop information in their corridor assessment carried out in 2004 as attached at Appendix 7-C. Published information on climate, geology, ALC and soil in the Scheme corridor collected as part of this detailed study of land quality has been utilised in this impact assessment.

7.2.16 Desktop information consulted includes:

- Geological Map Sheet 320/321 (Hastings and Dungeness) 1:50,000;
- Soil Survey of England and Wales, National Soil Map Sheet 6 (South East England), 1:250,000 and accompanying Regional Bulletin;
- Agricultural Land Classification, Sheet 184 (Hastings), Provisional, 1:63,360 and accompanying Report;
- Agricultural Land Classification of England and Wales. *Revised guidelines and criteria for grading the quality of agricultural land*. October 1988. (Introduced in January 1989);
- The Met. Office *Climatological data for Agricultural Land Classification*. January 1989; and,
- DEFRA ALC assessments carried out on behalf of East Sussex County Council (ESCC) in 1992, 1995 and 1998 (See Appendix 7-A).

Site Survey

7.2.17 In order to supplement DEFRA/MAFF ALC information and other desktop information collected, a detailed site ALC survey was carried out by LANDLOOK consultants in 2004. The LANDLOOK ALC survey was carried out in accordance with best practice methodology set out in MAFF Revised Guidelines and Criteria for Grading the Quality of Agricultural Land. The LANDLOOK ALC survey of the Scheme study area is given as Appendix 7-C, and described in 'Existing Conditions' below.

Desk-Top Studies and Site Investigations: Agricultural Holdings

7.2.18 The assessment of the impacts of the proposed Scheme upon farm holdings considered the following key agricultural elements:

- The type of agricultural enterprises being carried out and the husbandry/management currently employed;
- Estimates of the amount of agricultural land from each holding that would be affected by the proposed Scheme including land taken directly by the Scheme and also land which would no longer be viable for agricultural use e.g. where severance makes it impossible to farm productively;
- The potential impacts of proposed accommodation works for access drainage and water supply; and,
- The potential impacts of the proposals on land currently within farm diversification and agri-environment schemes.

7.2.19 A comprehensive site assessment of farming circumstances along the Scheme corridor was made by the specialist, Kernon Countryside Consultants, in 2004. The Kernon Countryside report is given in full as Appendix 7-D of this ES, and is utilised in 'Existing Conditions' below. Additional information on farming in 2006 has been obtained from ESCC, the DEFRA farming and land use web-pages and from relevant agricultural statistics.

Significance Criteria Used in this Agricultural Assessment

7.2.20 A nationally recognised, standard set of significance criteria for the assessment of land use does not exist. Consequently, a bespoke set of significance criteria has been devised for use in this assessment, in the light of relevant European, national, regional, county and local policies and guidance.

Significance of Impacts – Agricultural Land Quality.

7.2.21 The assessment is based on the area of permanent loss of the best and most versatile land as described within PPS7 as land classified within the MAFF ALC System as grades 1, 2 and 3a land. In contrast to previous national policy for the protection of the best and most versatile land in PPG (7), there are no definitive criteria for the assessment of the impacts of the project on agricultural land quality within the most recent PPS7 (August 2004). The emphasis in PPS7 is the need to create a sustainable countryside framework, with a consequent reduction in the importance to be attached to the loss of the best and most versatile land in the overall balance of all environmental and planning factors.

7.2.22 However currently, in the absence of any updated thresholds, the former guidance in PPG 7 on the thresholds for significant loss of best and most versatile land is still commonly adopted and has been applied in this case. On this basis "*proposals for development for non-agricultural purposes requiring significant amounts of higher quality land*" were those that would lead to "*the loss of 20ha or more of the best and most versatile land.*"

7.2.23 The significance criteria adopted to assess the impacts of this Scheme on Agricultural Land Quality are detailed in Table 7.1.

Table 7.1 Significance of Impacts on Agricultural Land Quality

Significance of Impacts	Evaluation Criteria
Major Adverse	Land Quality Loss of >50ha best and most versatile land
Moderate Adverse	Agricultural Land Quality Loss of >20ha best and most versatile land
Minor Adverse	Agricultural Land Quality Loss of <20 ha of best and most versatile land
Negligible	Agricultural Land Quality No loss of best and most versatile agricultural land
None	No loss of agricultural land

Significance of Impacts – Farm Holdings

7.2.24 For the purpose of this assessment, the impact of the Scheme on the daily operation of farm businesses is described as either ‘major’, ‘moderate’, ‘minor’ as per Table 7.2 below.

Table 7.2 Significance of Impacts on Farm Holdings

Impact Significance	Evaluation Criteria
Major Adverse	Renders an existing full-time farm business (including any diversification enterprises) unworkable in its current form.
Moderate Adverse	A significant effect on the workability of a full time farm business (including any diversification enterprises) but where farming could continue in the same way as before the Scheme. In such a case, the farm business could largely continue in its present form, albeit the impacts of the Scheme are likely to reduce net farm income and day-to-day management is likely to change from the present.
Minor Adverse	Limited impacts on the workability and the economic performance of a full-time farm unit (including any diversification enterprises), or the loss/significant effect on the viability of a part-time farm business (including any diversification enterprises), where income is derived mainly from non-agricultural means and supplemented by income from agriculture.
Negligible	No impacts on the workability and the economic performance of a full-time farm unit.
None	No loss of land from a full-time farm unit

7.3 Existing Conditions

7.3.1 A description of the Scheme is given in Chapter 3A: Scheme Information of this ES. For the purpose of this land use assessment, the Preferred Route Option is taken to be 5.58 km in length from its junction with the A259 in Bexhill to its junction with the B2092 Queensway in Hastings. A 1.4km section of the road at the western-end would be constructed on a former railway line, the Bexhill Connection, and through urban development at Bexhill, to single, two-lane carriageway standard. Therefore, no agricultural land would be effected by the 1.4 km section of the Scheme within the Bexhill Connection.

Agricultural Land Quality

7.3.2 A number of studies have been carried out in the vicinity of and along the Preferred Route Option of the Scheme which provide detailed information on the agricultural land quality of land affected by the proposals. These include:

- DEFRA ALC Site assessments carried out on behalf of East Sussex County Council in 1992, 1995 and 1998 (See Appendix 7-A);
- A detailed desk top study of the BHLR Study area carried out by RPS (See Appendix 7-B); and,
- A detailed ALC survey of the route corridor carried out by LANDLOOK in 2004 (See Appendix 7-C).

Published Information Relevant to the Agricultural Land Classification of the Route

Geology

7.3.3 The local bedrock in the area is of Wealden (early Cretaceous) age. This was laid down about 145 to 130 million years ago as part of a large estuarine delta. During the growth of the delta the deposits were siltstones and fine sandstones e.g. the Ashdown Beds and Tunbridge Wells Sand. When estuarine conditions prevailed clays such as the Wadhurst Clay were deposited. Where minor alterations in conditions occurred the deposits became more mixed resulting in bands of 'Clay in Ashdown Beds', and 'Sand in Wadhurst Clay'.

7.3.4 These Cretaceous deposits have been subsequently uplifted, folded and faulted before being eroded in more recent times, particularly by the action of running water. Thus the courses of the various streams and rivers in the area are cut into the Cretaceous sediments, but are themselves floored by alluvium, usually clayey, laid down within the past few thousand years.

7.3.5 Between Bexhill and Hastings the main valley sides are formed mainly in siltstones and fine sandstones of the Ashdown Beds. Wadhurst Clay, including inter-bedded sandstones and siltstones, tends to occur on the higher ground, particularly on the north-east edge of Bexhill (in the vicinity of

Worsham Farm), on the western edge of Hastings (around Harley Shute) and along the northern edge of the area from around Upper Wilting Farm, through land north of Adam's Farm to Byrne's Farm.

Soils

7.3.6 There is no detailed soil map for the area and so the only published source of information is Sheet 6 (South East England) of the 1:250,000 National Soil Map. This shows geographic groupings of soils called soil associations, usually related to specific parent materials. Because of scale limitations, only major areas of each association are shown but recourse to larger scale geological maps allows some refinement particularly where, as here, two of the main associations are linked to sandy and clayey Wealden rocks respectively. Each association contains a collection of soils which tend to occur together, but are often quite different because of local small-scale changes in geology or topography. The distribution of these different soil types, which is often of relevance to the ALC gradings can usually be determined only by a detailed site inspection.

7.3.7 The areas of sandstones and siltstones e.g. the Ashdown Beds, the Sand in Wadhurst Clay and the Tunbridge Wells Sand are shown as having soils of association 572i CURTISDEN. The clayey formations i.e. the Wadhurst Clay and the Clay in Ashdown Beds have soils of association 711i WICKHAM 5. The third association shown on the National Soil Map is association 813d FLADBURY 3 on the river alluvium.

7.3.8 The CURTISDEN Association (572i) is described as a collection of "*silty soils over siltstone with slowly permeable subsoils and slight seasonal waterlogging.*" It is typically developed over Cretaceous and Jurassic siltstone and sandstone. The silty soils with slowly permeable subsoils and slight seasonal waterlogging belong to the Curtisden series *per se*, while the 'similar well drained soils' and 'well drained coarse loamy soils' are the Atrim and Bearsted series respectively. Many of the soils in the association, even those with medium textures, have slowly permeable compact subsoils which cause drainage impedence. However, with artificial drainage (which is assumed to have been installed when making an ALC assessment), they can be improved to Wetness Classes II or III. In general, the soils have good supplies of moisture for crop growth, unless rooting depth is limited by the occurrence of hard strata near the surface which is mainly the case in the better drained profiles.

7.3.9 The WICKHAM 5 Association (711i) is described as a collection of "*slowly permeable seasonally waterlogged fine loamy over clayey soils, fine silty over clayey and clayey soils, locally reddish. Some coarse loamy soils with slowly permeable subsoils and slight seasonal waterlogging.*" It is developed in drift over Cretaceous clay and sandstone. These soils are generally heavier in texture and less well drained than those of the CURTISDEN Association. The 'fine loamy over clayey' and 'fine silty over clayey' soils are together classed as the Wickham series. Where this is absent, the soils are clayey throughout and would be classed as the Denchworth series.

7.3.10 The Combe Haven valley bottom has soils of the FLADBURY 3 Association (813d), developed in clayey river alluvium. This association is described as a collection of “*stoneless clayey, fine silty and fine loamy soils affected by groundwater. Flat land. Risk of flooding.*” The main soil present is the Fladbury series a grey coloured, heavy textured, poorly or very poorly drained soil.

Climatic Information

7.3.11 The assessment of a number of key limitations within the MAFF ALC System requires the use of site specific climatic information. Figures for the Preferred Route Option, taken from a standard Met Office Climate Dataset are given in Table 7.3 (taken from LANDLOOK 2004 Report Appendix 7-B).

Table 7.3 Climatic Data for the ALC Assessment

Grid Reference	TQ 7500 1000
Altitude	19m AOD
Average Annual Rainfall (mm)	780mm
Accumulated temperature	1507 day degrees
Moisture Deficit Wheat	122mm
Moisture Deficit Potatoes	120mm
Field Capacity Duration	163 days

7.3.12 The figures for accumulated temperature and average annual rainfall are combined to assess if an overall climatic limitation exists on the site. There is no such limitation for this Scheme. The moisture deficit figures for wheat and potatoes are applied in the assessment of the ALC droughtiness limitation and the length of the field capacity duration is used in the assessment of the wetness limitation.

Detailed ALC of the Site

7.3.13 The detailed ALC survey carried out by LANDLOOK in 2004 has been used to determine the ALC of the Scheme assessment corridor. The results are described in detail in the report attached at Appendix 7-C.

7.3.14 From consultation with DEFRA’s RDC, it was determined that MAFF carried out a number of detailed ALC surveys close to the Scheme study area between 1995 and 1997. The results of these surveys identify the same types of soil materials and ALC limitations as that identified by the LANDLOOK survey work. The main characteristics of the quality of agricultural land within the Scheme corridor can therefore be summarised as follows:

- Grade 2 and sub-grades 3a and 3b are represented together on this Scheme with a small area of non-agricultural land;
- Soil profiles graded 2 generally comprise freely drained light loams. The soils hold moderately large amounts of water, but locally the presence of hard sandstone is sufficient to impose a slight drought limitation and crops will suffer slightly from a lack of water leading to the loss of yield in most years. Other soils graded 2 have light loamy over clayey profiles with slow permeability and slight seasonal wetness;
- The bulk of the land above the floodplain has loamy or silty over clayey soils with slowly permeable heavy textured substrates within 58cm of the ground surface. Soils are seasonally wet (Wetness Class III) and are placed in sub-grade 3a;
- The clayey soils on the floodplain are very wet (Wetness Class IV). Drainage of the ground surface is aided by a system of channels taking excess water from the surface and thus allowing access to the ground in the summer months. This land is included in sub-grade 3b category. The small areas of moderately steep slopes at the eastern end of the route are also included in the sub-grade 3b category; and,
- The proportion of the ALC grades determined in the LANDLOOK survey is consistent with that determined by DEFRA/MAFF in the area is shown in Table 7.4 (also see Appendix 7-A). This includes the total area of agricultural land affected by the Scheme footprint.

Table 7.4 Distribution of Agricultural Land Quality within the Scheme

Grade	Area (ha)	%
2	19.6	20
3a	36.2	38
3b	39.7	42
TOTAL	95.5	100

Designated Agricultural Areas

7.3.15 From a Government website together with information from the 2004 Kernon Countryside Report (Appendix 7-D), the proposed Scheme would affect some land entered into a Countryside Stewardship Agreements, Entry Level Stewardship Scheme, Higher Level Stewardship Scheme and the Organic Farming Scheme with DEFRA. The Scheme would not affect any other designated agricultural area. Where areas of land in these government schemes would be effected by the Scheme, has been taken into account in the assessment of the individual farm holdings and the extent to which Scheme land take would be mirrored by a reduction in land available to be included in these government schemes.

Agricultural Holdings

7.3.16 A detailed assessment of Farming Circumstances produced by Kernon Countryside Consultants (Appendix 7-D) has been used as the basis of this assessment. To the east of the urban edge of Bexhill, the Preferred Route Option of the Scheme crosses over predominantly agricultural land, which is used for producing various arable crops and grass, i.e. pasture for grazing livestock.

7.3.17 The location of each of the holdings along the alignment of the Scheme is shown on Figure 7.1. The effect on the main farm holdings likely to be affected by the Scheme as assessed by the Kernon Countryside Consultants are described as follows:

Glovers Farm

7.3.18 This is a mixed arable and pasture farm extending to approximately 95ha. Until 1997 the farm had operated as a dairy unit. The farm now crops approximately 40ha of arable land, the remaining land being permanent pasture. The farm provides stabling for a maximum of 35 horses and an indoor manège. This land is entered in a government Environmental Stewardship Scheme with some of the land in Higher Level Stewardship.

Buckholt Farm

7.3.19 This farm holding comprises an organic 141ha mixed beef and arable unit, comprising 101ha of farmland and 40ha of woodland. The majority of the woodland forms part of a commercial shoot.

Acton's Farm

7.3.20 This comprises a small holding extending to approximately 18ha with a further 12–16ha rented in Crowhurst. The holding runs only a small livestock enterprise and also supports a Pony Stud that extends on average to approximately 20 ponies. It is understood that this land within this holding is entered into the government Entry Level Stewardship Scheme. Due to the size of the agricultural enterprises operated this unit is not a full-time viable agricultural unit. Indeed one of the partners works part-time to supplement the farm income.

Hillcroft Farm

7.3.21 This is a 65 ha mixed arable and stock farm. The main enterprise is a 40ha arable enterprise. The farm rears approximately 45 calves per year which graze the Site of Special Scientific Interest (SSSI) and arable reversion land. It is understood that this land within this holding is subject to a Countryside Stewardship Agreement.

Betz Ltd

7.3.22 This land holding lies adjacent to either side of Adam's Farm. The holding comprises 20ha of land. It is owned by a company that has no direct farming interests. The land is let out on a short term agreement to a local farmer who has land elsewhere. There are no farm buildings in this location associated with the land.

Adam's Farm

7.3.23 The assessment of Adam's farm, carried out by Kernon Countryside in 2004 indicated this holding to comprise a block of approximately 20ha of rented arable and pasture land. However, it is understood that that there is no longer a farming enterprise operated from these buildings.

Decoy Farm

7.3.24 This is a beef and sheep unit extending to approximately 36ha with a further 36ha rented in Battle on a grazing agreement. The farm which is predominantly pastureland supports a herd of suckler cows plus off-spring and finishes approximately 50 fat lambs each year. It is understood that land within this holding is subject to a Countryside Stewardship Agreement.

Upper Wilting Farm

7.3.25 This farm holding comprises a 90ha tenanted arable and livestock unit. The farm crops approximately 28ha of arable crops and runs 20 suckler cows. In addition, there are 15 breeding sows (Gloucester Old Spot) that are used to produce sausages and other meat products sold at the farm. This enterprise utilises the woodland areas within the holdings. The farm also runs a DIY livery yard with stabling for 22 horses. The proposals affect land at the northern end of the holding. It is understood that land within this holding is subject to a Countryside Stewardship Agreement.

7.4 Mitigation Strategy

7.4.1 The following mitigation strategies are proposed to avoid or reduce the impacts on agricultural receptors including:

- Soil Resources and Agricultural Land Quality; and,
- Agricultural Farm Holdings.

Soil Resources and Agricultural Land Quality

7.4.2 Government policy, as set out in the *First Soil Action Plan for England 2001-2006*, is moving away from the protection of land towards the sustainable use of soil. Whilst there is no mitigation for the loss of best and most versatile agricultural land, there is possible mitigation to remediate the adverse impact of the Scheme on soil.

7.4.3 This includes safeguarding soil quality by implementing appropriate techniques for stripping, storing and re-using soil. The aim is to maintain the

quality of the soil for re-use in amenity areas and/or landscaping schemes. Mitigation for impacts on soil would be implemented through a Soil Handling and Management Strategy, which would form part of a Construction Environmental Management Plan (CEMP).

7.4.4 Best practice in the stripping, handling and restoring of soil materials is included in the MAFF *Soil Handling Guide* 2000 and the Department of Environment (DoE) *Guidance on Good Practice for the Reclamation of Mineral Workings to Agriculture* 1996. Key principles of good practice which would be included in the *Soil Handling and Management Strategy* for the agricultural areas would include:

- The survey and identification of soils to be handled on the site, including topsoil and subsoil resources. This survey work has already been carried out along the Scheme alignment and the main soil types identified;
- Ensure that the best quality soil materials are used for the best quality reclamation. This will include the use of the grade 2 and 3a soil materials in the reclamation of the areas identified for agricultural reclamation;
- The handling of soil materials in appropriate conditions. Different local authorities have their own preferred method of controlling such movements. Irrespective of the method chosen, the soils should not be moved when they are wet as they are liable to serious damage that can affect the quality of the agricultural reclamation process;
- The use of the most appropriate soil handling machinery. For high quality reclamation, the dump truck and back acter method is recommended, as this is considered to minimise damage to soil materials during soil handling operations;
- Wherever possible, strip and move the soils to their final restoration location, without having to put them into store. This reduces the risk of soils being damaged, mixed or lost during the storage programme; and,
- If soils are stored:
 - Separate topsoil and subsoil stores;
 - Minimise the length of time that soils are in store; and,
 - Locate heaps so as to avoid damage to them.

Farm Holdings

7.4.5 The implementation of the Scheme would produce a number of different impacts on individual farm holdings. The types of impacts and potential mitigation for these impacts on farm holdings is summarised in Table 7.5.

Table 7.5 Mitigation Measures for Farm Holdings

Potential Impact	Description	Mitigation
Land take by farm	The effect on individual farm holdings due to permanent land take.	Reinstatement of land following construction to reduce permanent land take. Replacement of land taken from holding with suitable adjacent land.
Crop loss and timing	The potential losses which may have a knock on effect for other enterprises.	Adjustment to construction programme to accommodate harvesting of crops wherever possible.
Construction severance	Short-term severance of accesses which may have time limited implications for the management of agricultural and diversified activities.	Maintenance of farm access points wherever possible or re-provision as soon as possible within the construction process
Construction phase disruption to services and drainage	These impacts may be for the duration of mitigation works or for the duration of the construction period. Disruption to either will have consequential land management implications.	Maintenance of essential services throughout construction period.
Disease transmission and bio-security	Generally problems during the construction phase only.	Implement best practice construction procedures to ensure that no cross-contamination between holdings occurs.
Generation of Noise and Dust	Could affect crops, grazing livestock or diversified income. The most significantly affected enterprises will be free-range outdoor poultry enterprises whose production levels can be significantly hampered by sudden noises such as construction blasting.	Apply best practice construction procedures to minimise impacts of dust and noise on crops and livestock.
Effect on Agri-environment Schemes	Natural England Entry/ Higher lever Stewardship Scheme/Organic Farming Scheme	Reintegration of restored land into appropriate government scheme following consultation with Natural England.

7.5 Assessment of Impacts

Construction Impacts

Agricultural Land Quality – Assessment of Impacts

7.5.1 The most significant effect on agricultural land quality would occur at the beginning of the construction period when all land within the footprint of the Scheme would be incorporated into the construction programme.

7.5.2 The distribution of land quality within the Scheme footprint is identified in the Table 7.6.

Table 7.6 Temporary Loss of Agricultural Land During Construction within the Scheme footprint

Grade	Area (ha)	%
2	19.6	20
3a	36.2	38
3b	39.7	42
TOTAL	95.5	100

7.5.3 However, the construction programme would include the implementation of an environmental design where certain areas of land taken during the construction period would be reinstated to improved open grassland, open grassland for badger foraging and arable agricultural land uses. These areas would be reclaimed in accordance with a detailed soil handling and management strategy, implementing 'best practice' guidance in agricultural reclamation as discussed in the Mitigation Strategy section of this chapter.

7.5.4 The reinstatement of these particular areas would lead to the reduction of 19.4ha in the total permanent loss of agricultural land quality within the Scheme. The loss of agricultural land quality resulting from the Scheme at the end of the construction period is shown in Table 7.7.

Table 7.7 Permanent Loss of Agricultural Land within the Scheme Footprint

Grade	Area (ha)	%
2	9.6	12
3a	29.0	38
3b	37.5	50
TOTAL	76.1	100

7.5.5 The permanent loss of land following the reinstatement of land at the end of the construction period is therefore 76.1ha. The implementation of the Scheme would therefore lead to the permanent loss of 38.6ha of grade 2 and 3a best and most versatile land. The significance of this effect is assessed as Moderate Adverse.

Operational Assessment

7.5.6 It is assumed that the reinstatement of any areas of agricultural land within the Scheme footprint would be completed during the Construction Period. Therefore, no additional impacts would occur during the operation of the Scheme.

Farm Holdings Assessment of Impacts

7.5.7 The assessment of impacts on farm holdings is considered firstly, in terms of the individual holdings. This is followed by a summary of the overall impacts on farm holdings that would arise from the Scheme

Glovers Farm

7.5.8 This holding was assessed to comprise approximately 95ha of land in 2004 and the assessment of impacts on this holding are based on the findings of this report.

7.5.9 However, a significant proportion of this land is already allocated for development within the Adopted Rother District Local Plan (July 2006). Development of such land would have a significant effect on the current operation of the farm holding, with the entire southern part of the holding incorporated into the North East Bexhill Development area as business space and landscaping belts.

7.5.10 The farm holding as it exists at present is currently divided into two areas by the alignment of the disused railway line. The Scheme alignment would follow the disused railway line to a point north of Glovers Farm buildings where it then turns north from the disused railway across the northern section of Glovers Farm. This alignment would sever a number of additional fields including grassland areas to the south and two larger arable fields further north. The Scheme includes the provision of a Glovers Farm accommodation bridge.

Construction Impacts

7.5.11 The footprint of the Scheme would effect approximately 28.5ha or 30% of the farm holding including land entered into Environmental Stewardship Entry Level and Higher Level Schemes. This is a significant proportion of the holding. In addition there would be workability implications caused by the severance of individual fields.

7.5.12 The loss of land from this holding as assessed in 2004 and not taking into account the allocation for future development of the southern part of the holding, would have a major effect on the overall operation of the holding. The significance of this loss is assessed as Major Adverse.

Mitigation

7.5.13 The environmental design for the Scheme includes the restoration of substantial areas of land to open grassland for badger foraging. This Scheme would implement a detailed Soil Handling and Management Strategy to ensure that the agricultural land quality of these areas would be reclaimed according to a specific agricultural restoration specification. The areas of restored land within the Glovers Farm Holding would, following successful reclamation be available, by agreement with ESCC to be returned to that holding.

Operational Impacts

7.5.14 The implementation of the mitigation and successful reclamation of open grassland areas would enable 16.8ha of land to be re-integrated into the Glovers Farm Holding. This would reduce the land take from this holding from 28.5ha to 11.7ha (12%). This would reduce the overall effect on the viability of the holding, although there would still be residual management and workability issues. The significance of the impacts, based on the reduction in overall land loss is assessed as Moderate Adverse.

Buckholt Farm Holding

7.5.15 This farm holding comprises an organic 141ha mixed beef and arable unit, comprising 101ha of farmland and 40ha of woodland. The majority of the woodland forms part of a commercial shoot.

7.5.16 The Scheme would sever fields currently used for grazing although they have recently formed part of an arable rotation. Access to severed areas could be maintained by Acton's Farm track.

Construction Impacts

7.5.17 The loss of land to agricultural use during construction would be approximately 6.5ha or 6% of the agricultural land. The loss of the land is at the southern most extent of the holding and access to the small areas of land to the south of the Scheme alignment would be maintained via the Acton's Farm track, although these areas of land are intended primarily for wildlife use within the Scheme. The significance of the effect on the holding during construction is therefore assessed as Minor Adverse.

Mitigation

7.5.18 The environmental design for the Scheme includes the reclamation of approximately 0.9ha of land within the current Buckholt Farm holding to open

grassland to the north of the Scheme. This area of land, could by agreement with ESCC and if appropriate to the operation of the holding be reintegrated into the Buckholt Farm holding.

7.5.19 In addition, as this holding is currently with the government Organic Farming Scheme, the construction programme would need to be managed appropriately where it affects this holding to ensure that no additional land beyond the Scheme footprint within the Organic Farming Scheme is adversely affected.

Operational Impacts

7.5.20 The loss of the land from the holding following construction and mitigation would be approximately 5.6ha or 5.5% of the land holding. This permanent loss of this land from the holding is assessed to be of Minor Adverse significance.

Acton's Farm

7.5.21 This comprises a small holding extending to approximately 18ha with a further 12–16ha rented in Crowhurst. The land affected by the Scheme is currently within the government Entry Level Stewardship Scheme. The holding runs only a small livestock enterprise and also supports a Pony Stud that extends on average to approximately 20 ponies.

7.5.22 The area of land affected would include three areas of land to the south of the Scheme alignment. The Scheme would include the provision of an Acton's Farm Overbridge.

Construction

7.5.23 The construction footprint of the Scheme would include approximately 4.3ha of land from the holding. This loss would represent approximately 13% of the total holding. Acton's Farm is a small holding and does not operate as a commercial farm holding. The farm income is supplemented by additional part time work off site. The effect of this land loss on the operation of this part-time holding during construction is therefore assessed to be of Minor Adverse significance.

Mitigation

7.5.24 Access would be maintained to all areas of the holding through the construction of the Acton's Farm Overbridge.

Operational Impacts

7.5.25 The effects on this holding would remain as for the construction phase and the operational impact of the Scheme on this holding is therefore assessed to be of Minor Adverse significance.

Hillcroft Farm

7.5.26 This is a 65ha mixed arable and stock farm. The main enterprise is a 40ha arable enterprise. The farm also rears approximately 45 calves per year which graze the SSSI and arable reversion land. This land is subject to a Countryside Stewardship Agreement.

7.5.27 The route alignment would sever fields across the central part of the holding. Areas of land, particularly to the north of the proposed alignment would also be affected by the landscaping proposals, although the accurate extent of the landscaping works would be dependent upon earthworks requirements. The Scheme includes the provision of a Hillcroft Farm Overbridge.

Construction Impacts

7.5.28 The Scheme proposals would lead to a loss of approximately 26ha of land from the holding. This represents a major loss of land from the holding and the significance of the impacts on the holding during construction is therefore assessed as Major Adverse.

Mitigation

7.5.29 The mitigation for Hillcroft Farm would include the replacement of land taken for construction with suitable replacement land on an adjacent holding. ESCC own land at Hye House Farm, where the current tenancy expires in approximately 7 years time. It is understood that the current tenant on this holding is intending to retire and to downsize the extent of his current agricultural interests, whilst still retaining a livestock based agricultural holding on land he owns at the adjacent Hill House Farm. ESCC would therefore propose to transfer the farming part of Hye House Farm to the Hillcroft Farm holding at an appropriate time, whether by agreement prior to the expiry of the current tenancy or at the end of the tenancy agreement. ESCC would provide appropriate compensation to the Hillcroft Farm holding in the event that the construction of the Scheme commenced prior to the land at Hye House Farm being available.

7.5.30 The provision of the Hillcroft Farm Overbridge would maintain the access to the remaining areas of land to the south of the Scheme design.

Operational Impacts

7.5.31 The provision of replacement land for Hillcroft Farm would significantly reduce the impacts of the Scheme on the holding. The movement of the enterprise onto a different area of land would in itself, require management changes. In addition, the continued farming of land on the eastern edge of the holding and to the south of the Scheme alignment would also require management adjustments. The effect of these changes is therefore assessed to have a Minor Adverse effect.

Adam's Farm

7.5.32 The assessment of Adam's farm, carried out by Kernon Countryside Consultants in 2004 indicated this holding to comprise a block of approximately 20ha of rented arable and pasture land.

7.5.33 However, it is understood that there is no longer a farming enterprise operated here.

7.5.34 Based on the fact that no farming enterprise is operated here, there is no effect on Adam's Farm to be assessed.

Betz Limited.

7.5.35 This land lies adjacent to either side of Adam's Farm. It is owned by a company that has no direct farming interests. The land is let out on a short term agreement to a local farmer who has land elsewhere. There are no farm buildings in this location associated with the land.

Construction Assessment

7.5.36 The Scheme footprint would affect approximately 9ha of land within the Betz land ownership. In addition, the environmental design proposals would affect a further 4.2ha of land. However, the land on the farm is not farmed in hand and is let out on short term agreements. Its loss would therefore not have a permanent effect on any farm holding. The loss of this land is therefore considered to have an effect on a 'part time' farm holding and therefore to be of Minor Adverse significance.

Operational Assessment

7.5.37 The assessment remains the same as for the construction phase. The land would be taken for the Scheme from a 'part time' holding where the main business interests lie elsewhere and the land is let on a short term basis to a local farmer. The loss of the land is therefore considered to be of Minor Adverse significance.

Decoy Farm

7.5.38 This is a beef and sheep unit extending to approximately 36ha with a further 36ha rented in Battle on a grazing agreement. The farm which is predominantly pastureland, supports a herd of suckler cows plus off-spring and finishes approximately 50 fat lambs each year. The land is currently subject to a government Countryside Stewardship Agreement.

7.5.39 The Scheme alignment runs east to west across the central part of the farm holding. It includes the provision of vehicular access across the Decoy Farm via the Adam's farm Overbridge and livestock access via an underpass on the eastern edge of the holding.

Constructional Impacts

7.5.40 The construction of the Scheme would lead to the loss of approximately 4.6ha from the farm holding. This represents 13% of the land within the land ownership and 6.5% of the total farm holding included the rented land. This loss of land would have an effect on the numbers of livestock that could be maintained on this block of land. The significance of the impacts on this holding is therefore assessed as Moderate Adverse.

Mitigation

7.5.41 The environmental design for the Scheme includes the reclamation of approximately 0.9ha of land to full agricultural use within the area currently farmed as part of the Decoy Farm holding. This reclamation would be carried out in accordance with the detailed Soil Handling and Management Strategy for the Scheme. This land could then be returned to the Decoy Farm holding through an agreement between ESCC and the farmer.

7.5.42 In addition, vehicular access would be maintained across the Decoy Farm holding via the Adam's farm Overbridge and livestock access via an underpass on the eastern edge of the holding.

Operational Impacts

7.5.43 The Scheme would include the provision of both vehicular and livestock access for use by the Decoy Farm holding. In addition, the reclamation of 0.9ha of land and the return of this land to the holding would reduce the landtake from the Decoy Farm holding from 4.6ha to 3.7ha. The loss of 3.7ha would represent a loss of approximately 10% of the land owned by the holding and 5% of the land farmed by the holding, including rented land.

7.5.44 The operational effect on Decoy Farm holding, based on the remaining residual loss of land is assessed as a Minor Adverse impact

Upper Wilting Farm

7.5.45 This farm holding comprises a 90ha tenanted arable and livestock unit. The farm crops approximately 28ha of arable crops and runs 20 suckler cows. In addition, there are 15 breeding sows (Gloucester Old Spot) that are used to produce sausages and other meat products sold at the farm. This enterprise utilises the woodland areas within the holdings. The farm also runs a DIY livery yard with stabling for 22 horses. The land within the holding is within the government Countryside Stewardship Scheme. The proposals affect land at the northern end of the holding.

7.5.46 The Scheme dissects the northern part of the holding and access to the holding is maintained via the Crowhurst Road Underbridge.

Construction Impacts.

7.5.47 The Scheme would lead to the loss of 10.2ha (11%) land during the construction phase.

7.5.48 The significance of the loss of this land during the construction phase, together with the implication for the day to day management of the holding during the construction phase is assessed as Moderate Adverse.

Mitigation

7.5.49 Access to all parts of the holding would be retained through the provision of the Crowhurst Road Underbridge.

Operational Impacts

7.5.50 The loss of 10.2ha (11%) of the holding would have a continued effect on the overall workability of the farm holding and the effect is therefore assessed as Moderate Adverse.

Summary of Impacts on Farm Holdings

7.5.51 Table 7.8 and 7.9 summarise both the loss of land on the farm holding and the impacts caused by the Scheme.

Table 7.8 Loss of Land on Individual Farm Holdings

Farm Holding	Area of land Affected During Construction (ha)	% of Land Affected During Construction	Area of Land Affected During Operation (ha)	% of Land Within Holding Affected During Operation
Glovers Farm	28.5	30%	11.7	12%
Buckholt Farm	6.5	6.5%	5.6	5.5%
Acton's Farm	4.3	13%	4.3	13%
Hillcroft Farm	26	40%	0	0%
Betz Land Holding	13.2	68.5%	13.2	68.5%
Decoy Farm	4.6	13%	3.7	10%
Upper Wilting Farm	10.2	11%	10.2	11%

Table 7.9 Significance of Impacts

Farm Holding	Significance of Impacts During Construction	Significance of Impacts Following Implementation of Mitigation Measures.
Glovers Farm	Major Adverse	Moderate Adverse
Buckholt Farm	Minor Adverse	Minor Adverse
Actons Farm	Minor Adverse	Minor Adverse
Hillcroft Farm	Major Adverse	Minor Adverse
Betz Holding	Minor Adverse	Minor Adverse
Decoy Farm	Moderate Adverse	Minor Adverse
Upper Wilting Farm	Moderate Adverse	Moderate Adverse

7.5.52 The operational impact of the Scheme on the individual farm holdings therefore varies from Minor to Moderate Adverse. The overall impact of the Scheme on farm holdings is therefore assessed as Moderate Adverse

7.6 Conclusions

7.6.1 The assessment of the impacts of the Scheme on agriculture and forestry follows the approach of the Governments Design Manual for Roads and Bridges (DMRB), Volume 11, Section 3 Part 6 *Land Use* and covers the following topics:

- Agricultural Land Quality and Designate Agricultural Areas;
- Agricultural Farm Holdings

7.6.2 The assessment of Agricultural Land Quality has included desk top appraisal and detailed site survey to determine the Agricultural Land Classification of land within the Scheme.

7.6.3 The assessment of Farm Holdings has included a desk top assessment together with a series of individual farm interviews carried out in 2004. This farm interview information has supplemented by updated information provided by ESCC.

7.6.4 The assessments of the impacts on Agricultural Land Quality and Farm Holdings are therefore summarised below.

Agricultural Land Quality

7.6.5 The implementation of the Scheme would lead to the maximum temporary loss of approximately 95.5ha of agricultural land. This would include the temporary loss of the following grades of agricultural land according to the MAFF Agricultural Land Classification Guidelines (October 1988) and detailed in Table 7.10.

Table 7.10 Loss of Agricultural Land Quality During Construction

Grade	Area (ha)	%
2	19.7	20
3a	36.2	38
3b	39.6	42
TOTAL	95.5	100

7.6.6 The implementation of the Environmental Design, incorporating good practice in the reclamation of soils, would restore areas of land within the footprint to a mixture of grassland and arable use. These areas could potentially be returned to agricultural use within the current farming framework.

7.6.7 If all identified areas are appropriately restored to a standard capable of agricultural use, as identified in the Environmental Design, the permanent land loss arising from the Scheme would be 77.6ha with the breakdown of grades of agricultural land lost as detailed in Table 7.11.

Table 6.11 Operational Loss of Agricultural Land Quality

Grade	Area (ha)	%
2	9.6	12
3a	29	38
3b	37.5	40
TOTAL	76.1	100

7.6.8 The implementation of the Scheme, with the appropriate reclamation of areas of agricultural land would therefore lead to the permanent loss of approximately 38.6ha grade 2 and 3a best and most versatile land. This loss of the best and most versatile land is assessed to be of Moderate Adverse significance.

Farm Holdings

7.6.9 The detailed appraisal of farm holdings carried out by Kernon Countryside Consultants identified that there were seven farm holdings affected by the Scheme. Adams Farm, identified at that time as a farm holding in 2004 no longer operates as a farming enterprise. In addition, part of Glovers Farm has now been allocated in the approved Rother District Plan (July 2006) as part of the North East Bexhill Development (discussed in detail in Chapter 16: Combined and Cumulative Impacts). The assessment in 2004 did not include land owned by Betz which lies adjacent to Adam's Farm. This land does not operate as a full-time farm unit, but is instead let out on a short term let as grazing land.

7.6.10 The impacts on the individual holdings have been assessed during construction, where the maximum land loss occurs, and during operation, when all appropriate mitigation measures have been implemented.

7.6.11 For the purposes of this assessment, Glovers Farm has been assessed as it is believed to operate currently, not taking into account the effect that the implementation of the Rother District Plan Allocation would certainly have on the holding in the future.

7.6.12 The most significant impacts during construction occur within the Glovers and Hillcroft farm holdings (see Table 7.12).

Table 7.12 – Farm Holding Impact Summary

Farm Holding	Significance of Impacts During Construction	Significance of Impacts Following Implementation of Mitigation Measures.
Glovers Farm	Major Adverse	Moderate Adverse
Buckholt Farm	Minor Adverse	Minor Adverse
Acton's Farm	Minor Adverse	Minor Adverse
Hillcroft Farm	Major Adverse	Minor Adverse
Betz Land Holding	Minor Adverse	Minor Adverse
Decoy Farm	Moderate Adverse	Minor Adverse
Upper Wilting Farm	Moderate Adverse	Moderate Adverse

7.6.13 The operational impact of the Scheme on the individual farm holdings therefore varies from Minor to Moderate Adverse. The overall impact of the Scheme on farm holdings is therefore assessed to be of Moderate Adverse significance.