

INTRODUCTION

- 16.1 This chapter of the Environmental Statement (ES) presents a summary of the likely significant residual effects pertaining to the Proposed Development during the enabling and construction works, and once completed and operational.
- 16.2 It should be noted that for most technical topics (with the exception of Agriculture, Landscape and Visual Impact and Greenhouse Gases where professional judgement or technical guidance is applied), residual effects that are identified as moderate or major in scale are considered to be 'significant', with effects that are negligible or minor in scale being 'not significant'. It should be noted that professional judgement in addition to published assessment guidance is used in concluding whether a residual effect is significant.
- 16.3 The purpose of this chapter is not to re-present the residual effects associated with each of the technical topic assessments. All residual effects, including their associated nature and scale, are presented and summarised within each technical chapter of the ES, and reference should be made to **ES Volume 1, Chapters 6 to 13** of this ES. Instead, this chapter focuses on summarising the *likely significant effects* that are expected to arise as a result of the Proposed Development, in line with the EIA Regulations.
- 16.4 Table 16.1 and Table 16.2 of this ES chapter respectively outline the likely significant residual effects resulting from the enabling and construction works associated with the Proposed Development, and once the Proposed Development is complete and operational.

LIKELY SIGNIFICANT EFFECTS

Enabling and Construction

- 16.5 **Table 16.1** summarises the likely significant effects arising as a result of the Proposed Development during enabling and construction works.
- 16.6 No significant enabling and construction effects are likely to arise as a result of the Proposed Development in respect of the following environmental topic areas which have been the subject of this EIA:
 - Health;
 - Traffic and Transport;
 - Air Quality;
 - Noise and Vibration;
 - Ecology and Biodiversity; and
 - Cultural Heritage (Archaeology).
- 16.7 Significant enabling and construction effects arising as a result of the Proposed Development have been identified as being likely in respect of the following topic areas, and are therefore discussed further in this chapter:
 - Socio-Economics;
 - Agriculture;
 - Cultural Heritage (Built Heritage);
 - Landscape and Visual Impact; and
 - Greenhouse Gases.

Table 16.1 Likely Significant Effects – Enabling and Construction

EIA Topic Area	Receptor(s)	Description of Residual Effect	Classification of Residual Effect			
			Scale, Nature and Geographic Extent	D I	P T	St Mt Lt
Agriculture	Agricultural land, including that of BMV quality.	Permanent loss of agricultural land for production.	Moderate Adverse District	D	P	Lt
Socio-Economics	Construction Employment and Local Economy	Generation of construction employment	Moderate Beneficial Local	D	T	Mt
Cultural Heritage (Built Heritage)	Upper Gore End Farmhouse	Enabling and Construction activities	Major Adverse Local	I	T	St
	Gore End Barn	Enabling and Construction activities	Major Adverse Local	I	T	St
Landscape	Physical Nature and Character of Public Rights of Ways crossing the site	Deterioration to landscape feature / element	Moderate Adverse Local	D/I	P	St
	Overall landscape character of the site	Deterioration to Landscape Character	Moderate Adverse Local	D/I	P	St
	Landscape Character Area C2: Central Thanet Undulating Chalk Farmland	Deterioration to part of Landscape Character Area located within the site.	Moderate Adverse Local (reducing to Negligible with increasing distance from the site)	DI	P	St
Visual Impact Assessment	Public Right of Way Users	Deterioration to the quality of View 1: From the corner of the site adjoining Essex Gardens.	At most Major Adverse Local	D	P	St
		Deterioration to the quality of: <ul style="list-style-type: none"> - View 2: From the junction of Public Footpath TM37 with the railway line, west of the site - View 4: View from Footpath TM35, south-west of site, west of a scheduled monument - View 5: View from Public Right of Way FP-TM32, at the point at which the Public Right of Way intersects the southern boundary of the site, west of the A28. - View 7: View from Park Lane, at the junction with Manston Road, 	Major Adverse Local	D	P	St

EIA Topic Area	Receptor(s)	Description of Residual Effect	Classification of Residual Effect			
			Scale, Nature and Geographic Extent	D I	P T	St Mt Lt
		at the eastern boundary of the site.				
		Deterioration to the quality of View 3: View from the track to the north of the railway line, west of the site (Footpath TM35).	Moderate Adverse Local	D	P	St
		Deterioration to the quality of View 1: From the corner of the site adjoining Essex Gardens.	At most Major Adverse Local	D	P	St
	Residential Occupiers	Deterioration to the quality of: - View 6: Views from the A28, between the eastern and western parcels of the site. - View 7: View from Park Lane, at the junction with Manston Road, at the eastern boundary of the site.	Major Adverse Local	D	P	St
		Deterioration to the quality of View 11: View from Acol Hill (road), at break in the hedgerow, south-east of the site.	Moderate Adverse Local	D	P	St
		Urban Road Users	Deterioration to the quality of View 1: From the corner of the site adjoining Essex Gardens.	At most Major Adverse Local	D	P
	Main Road Users	Deterioration to the quality of View 6: Views from the A28, between the eastern and western parcels of the site.	Moderate Adverse Local	D	P	St
	Minor Road Users	Deterioration to the quality of: - View 7: View from Park Lane, at the junction with Manston Road, at the eastern boundary of the site. - View 10: View from Crispe Road, south of the site, south of a scheduled monument - View 11: View from Acol Hill (road), at break in the hedgerow, south-east of the site.	Moderate Adverse Local	D	P	St

EIA Topic Area	Receptor(s)	Description of Residual Effect	Classification of Residual Effect			
			Scale, Nature and Geographic Extent	D I	P T	St Mt Lt
Greenhouse Gas Assessment	Global Climate	GHG emissions as a result of the enabling and construction of the Proposed Development.	Minor Adverse Global	D	P	Lt
Notes: Nature = Beneficial or Adverse Scale = Negligible / Minor / Moderate / Major Geographic Extent = Site or Local, District, Regional, National D = Direct / I = Indirect P = Permanent / T = Temporary St = Short Term / Mt = Medium Term / Lt = Long Term n/a = not applicable / not assessed						

Agriculture

16.8 Construction of the Proposed Development will require the development of 73.2ha of Best Most Versatile agricultural land in Grade 2 and Subgrade 3a. The removal of this land during enabling and construction is permanent and will result in a significant adverse effect.

Socio-Economics

16.9 A significant beneficial effect is likely to occur as a result of construction employment as the result of the Proposed Development. Based on a total construction period of approximately 144 months (dependent on the market requirements at the time of construction); the total average employment generated would be approximately 103 FTE construction jobs over the duration of the approximate 12-year construction programme. Enhancement measures would include a commitment to maximise opportunities for local recruitment and those employed locally as part of an agreed employment and skills plan.

Cultural Heritage (Built Heritage)

16.10 Construction activities near Upper Gore End Farm, which would include earthworks, the construction of the strategic link road corridor, and the construction of residential dwellings during Phase 3 in particular, are likely to be inter-visible with the listed buildings present within Upper Gore End Farm. These construction activities will also occur on agricultural land which is historically associated with Upper Gore End Farmhouse and Gore End Barn. As such, construction activities on the site will lead to a change to their setting. This will result in a significant adverse effect on Upper Gore End Farmhouse and Gore End Barn.

16.11 This change would not be more than a less-than-substantial level, considering the implementation of mitigation measures to lower levels of noise, dust and light spillage and the use of hoarding with a plain finish, which would be visually unobtrusive.

Landscape and Visual Impact

16.12 Enabling and construction works on site would result in significant adverse effects on both landscape character and visual amenity. The physical nature and character of the three existing footpaths which cross the site would be influenced in regard to their amenity as a result of ongoing construction work across the site. Planting which is proposed to be installed during construction would not yet be established, and newly constructed built form would be much closer to the routes than the current settlement edge.

16.13 The character of the site would change gradually but substantially and permanently as construction progresses, changing from edge-of-settlement arable farmland to residential development with associated infrastructure and landscaping.

16.14 The site occupies 6% of the C2 Central Thanet Undulating Chalk Farmland LCA, on land immediately adjacent to the existing settlement edge of Birchington – approximately 78 ha out of 1,232ha. The enabling and construction of the Proposed Development would therefore result in direct effects on the landscape character of this part of the LCA, and perceptual/experiential effects on the rest of the LCA, particularly the narrow western

end of the LCA. Effects on the majority of the LCA, particularly the eastern part of the character area more distant from the site, would be very limited.

16.15 The enabling and construction works would result in significant adverse effects to visual receptors at nine viewpoints, with these being restricted to areas adjoining and to the south of the site, and within approximately 850m of the site with the exception of one more distant viewpoint (1.15km from the site).

Greenhouse Gas Assessment

16.16 In accordance with IEMA guidance, all GHG emissions have been considered significant, and therefore, even with mitigation, the residual effect of the enabling and construction of the Proposed Development on climate change remains as Minor Adverse, which is considered to be significant.

Completed and Operational Proposed Development

16.17 Table 16.2 summarises the likely significant effects arising as a result of the Proposed Development once completed and operational.

16.18 No significant effects have been identified as being likely as a result of the completed and operational Proposed Development in respect of the following environmental topic areas which have been the subject of this EIA:

- Health;
- Traffic and Transport;
- Air Quality;
- Noise and Vibration;
- Agriculture;
- Ecology and Biodiversity; and
- Cultural Heritage (Archaeology).

16.19 Significant effects have been identified as being likely as a result of the completed and operational Proposed Development in respect of the following topic areas, and are therefore discussed further in this chapter:

- Socio-Economics;
- Cultural Heritage (Built Heritage);
- Landscape and Visual Impact; and
- Greenhouse Gases.

Table 16.2 Likely Significant Effects – Completed and Operational

EIA Topic Area	Receptor(s)	Description of Residual Effect	Classification of Residual Effect			
			Scale, Nature and Geographic Extent	D I	P T	St Mt Lt
Socio Economics	Housing Demand	Provision of new housing	Major Beneficial Local	D	P	Lt
			Moderate Beneficial District	D	P	Lt
	Open Space Provision	Increased demand for open space	Major Beneficial Local and District	D	P	Lt
	Playspace provision	Increased demand for playspace	Moderate Beneficial Local	D	P	Lt
Cultural Heritage (Built Heritage)	Upper Gore End Farmhouse	Alteration in the setting of the listed building	Major Adverse Local	I	P	Lt
	Gore End Barn	Alteration in the setting of the listed building	Major Adverse Local	I	P	Lt

EIA Topic Area	Receptor(s)	Description of Residual Effect	Classification of Residual Effect			
			Scale, Nature and Geographic Extent	D I	P T	St Mt Lt
Landscape	Trees and Hedgerows	Improvement or enhancement to landscape feature / element	Yr 1: Moderate Beneficial Yr 15: Major Beneficial Local	D/I	P	Lt
	Physical Nature and Character of Public Rights of Way crossing the site	Deterioration to landscape feature / element to <i>No discernible or a very minor effect to landscape feature / element</i>	Yr 1: Moderate Adverse Yr 15: Negligible (not significant) Local	D/I	P	Lt
	Overall landscape character of the site	Deterioration to Landscape Character. Improvement or enhancement to Landscape Character by Year 15.	Yr 1: Moderate Adverse Yr 15: Moderate/Minor Beneficial (not significant) Local	D/I	P	Lt
Visual Impact Assessment	Public Right of Way Users	Deterioration to the quality of: <ul style="list-style-type: none"> - View 1: From the corner of the site adjoining Essex Gardens. - View 2: From the junction of Public Footpath TM37 with the railway line, west of the site. - View 7: View from Park Lane, at the junction with Manston Road, at the eastern boundary of the site. 	Yr 1: At most Major Adverse Yr 15: At most Moderate Adverse Local	D	P	Lt
		Deterioration to the quality of View 3: View from the track to the north of the railway line, west of the site (Footpath TM35).	Yr 1: Moderate Adverse Yr 15: Minor Adverse (not significant) Local	D	P	Lt
		Deterioration to the quality of View 4: View from Footpath TM35, south-west of site, west of a scheduled monument	Yr 1: Moderate Adverse Yr 15: Moderate / Minor Adverse (not significant) Local	D	P	Lt
		Deterioration to the quality of View 5: View from Public Right of Way FP-TM32, at the point at which the Public Right of Way intersects the southern boundary of the site, west of the A28.	Yr 1: Major Adverse Yr 15: Moderate Adverse Local	D	P	Lt

EIA Topic Area	Receptor(s)	Description of Residual Effect	Classification of Residual Effect			
			Scale, Nature and Geographic Extent	D I	P T	St Mt Lt
	Residential Occupiers	Deterioration to the quality of: - View 1: From the corner of the site adjoining Essex Garden. - View 6: Views from the A28, between the eastern and western parcels of the site	Yr 1: At most Major Adverse Yr 15: At most Moderate Adverse Local	D	P	Lt
		Deterioration to the quality of View 7: View from Park Lane, at the junction with Manston Road, at the eastern boundary of the site.	Yr 1: At most Major Adverse Yr 15: at most Moderate/Minor (not significant) Local	D	P	Lt
		Deterioration to the quality of View 11: View from Acol Hill (road), at break in the hedgerow, south-east of the site.	Yr 1: Moderate Adverse Yr 15: Minor Adverse (not significant) Local	D	P	Lt
	Urban Road Users	Deterioration to the quality of View 1: From the corner of the site adjoining Essex Gardens	Yr 1: At most Major Adverse Yr 15: At most Moderate/Minor Adverse (Not Significant) Local	D	P	Lt
	Main Road Users	Deterioration to the quality of View 6: Views from the A28, between the eastern and western parcels of the site.	Yr 1: At most Major Adverse Yr 15: at most Moderate/Minor (not significant) Local	D	P	Lt
	Minor Road Users	Deterioration to the quality of View 7: View from Park Lane, at the junction with Manston Road, at the eastern boundary of the site.	Yr 1: At most Major Adverse Yr 15: at most Moderate/Minor (not significant) Local	D	P	Lt
		Deterioration to the quality of: - View 10: View from Crispe Road, south of the site, south of a scheduled monument. - View 11: View from Acol Hill (road), at break in the hedgerow, south-east of the site.	Yr 1: Moderate Adverse Yr 15: Minor Adverse (not significant) Local	D	P	Lt
	Greenhouse Gas Assessment	Global Climate	GHG emissions as a result of the Proposed Development	Minor Adverse Global	D	P

EIA Topic Area	Receptor(s)	Description of Residual Effect	Classification of Residual Effect			
			Scale, Nature and Geographic Extent	D I	P T	St Mt Lt
<p>Notes: Nature = Beneficial or Adverse Scale = Negligible / Minor / Moderate / Major Geographic Extent = Site or Local, District, Regional, National D = Direct / I = Indirect P = Permanent / T = Temporary St = Short Term / Mt = Medium Term / Lt = Long Term n/a = not applicable / not assessed</p>						

Socio-Economics

- 16.20** Once the Proposed Development is completed and operational there will be a significant beneficial effect on housing delivery at both the neighbourhood and local authority level. The delivery of up to 1,650 new residential units would represent up to 13.1% of TDC's 10-year housing provision target.
- 16.21** The Proposed Development would bring forward a total of 27.21 hectares of publicly accessible open space and 1.36 hectares of playspace. This would substantially exceed policy targets, representing significant beneficial effects on open space and playspace provision respectively.

Cultural Heritage (Built Heritage)

- 16.22** Once the Proposed Development is completed and operational, Upper Gore End Farmhouse and Gore End Barn would be affected by the introduction of new built form within their settings, including new built form on historically-associated land which was previously agricultural. This would result in a significant adverse effect on the setting of Upper Gore End Farmhouse and Gore End Barn.
- 16.23** In the National Policy Planning Framework (NPPF) terms, the magnitude of impact resulting from the completed development is of a less-than-substantial harm level (low-end of the scale). In accordance with Paragraph 196 of the NPPF, this impact should be weighed against the number of public benefits provided by the Proposed Development.

Landscape and Visual Impact

- 16.24** At Year 1, the landscape character of the site itself would continue to be substantially changed, resulting in a significant adverse effect. By Year 15, the landscape character of the site would have been changed from edge-of-settlement farmland to residential development and associated infrastructure and significant landscaping. The development of the structural planting within the site and around the southern edge including the woodland areas and park spaces would enhance the local landscape structure and contribute positively to landscape character.
- 16.25** Both existing and new trees and hedgerows would become increasingly well established and developed, adding substantially to the quality and character of the landscape within the site. The structural planting around the southern and south-western boundary would also provide an increasingly softened edge to Birchington-on-Sea. This would result in a significant beneficial effect at Year 1, which would further increase in scale by Year 15.
- 16.26** At Year 1, the physical nature and character of the three PRoWs which cross the site would still be significantly adversely affected by the Proposed Development, as although now returned to their original alignment and running within landscaped corridors, the planting would not yet be established and new built form would be much closer to the routes than the original settlement edge of Birchington-on-Sea. However, by Year 15, the proposed landscaping and planting would be well established, providing an attractive and pleasant setting to the footpaths, albeit one where built form would be much closer than users of these PRoWs would have experienced previously. By Year 15 these adverse effects would reduce in scale to not significant for most views.
- 16.27** Significant adverse effects arising from the completed development have been identified on visual receptors at nine viewpoints, however, in all cases, the effects reduce by Year 15 due to the establishment of the significant green infrastructure proposed across the site. These effects are considered inevitable due to the change in

land use and the proximity of the viewpoints to the site (where all of these viewpoints are within a localised geographical area, within 850m of the site).

Greenhouse Gas Assessment

- 16.28** In terms of Greenhouse Gases (GHGs), when assessing the Proposed Development to relevant climate change policy, it has been demonstrated that the Proposed Development meets all relevant policy requirements. The UK has adopted a net zero target to be achieved no later than 2050 with UK government legally mandated to take steps across the economy to meet this target. This will include measures to decarbonise UK power supply as well as ground transportation the effects of which will be to reduce the longer term operational GHG emissions associated with the Proposed Development to zero by 2050.
- 16.29** Overall, the Proposed Development contributes a small amount to GHG emissions representing approximately 4.17% of total emissions in TDC and will employ commensurate mitigation measures to ensure policy compliance and minimise its contribution to climate change where possible. In accordance with IEMA guidance, all GHG emissions have been considered significant, and therefore, even with mitigation, the residual effect of the Proposed Development on climate change during operation remains as Minor Adverse, which is considered to be significant.

LIKELY SIGNIFICANT CUMULATIVE EFFECTS

- 16.30** The EIA process has identified likely significant cumulative effects additional to the main assessment of the Proposed Development (as summarised in **Tables 16.1** and **16.2** above), as well as changes to significant effects already identified, as a result of the enabling and construction and operational Proposed Development in conjunction with other surrounding cumulative schemes.

Enabling and Construction

- 16.31** The following additional or different likely significant effects as a result of the cumulative impact assessment have been identified:

- Socio-Economics:
 - In terms of employment, Manston Airport is expected to generate additional construction employment. The cumulative effect on construction employment is expected to increase from Moderate Beneficial to be Major Beneficial when considered cumulatively with Manston Airport.
- Agriculture
 - In total, 63 sites in the Local Plan have been considered, of which 46 affect agricultural land and have the potential to lead to the cumulative loss of best and most versatile (BMV) agricultural land within the District. Collectively, the 46 sites extend to over 600ha of BMV agricultural land. The cumulative impact of these additional sites on BMV agricultural land, taking into consideration the Proposed Development, is expected to increase from Moderate Adverse to Major Adverse when considering the cumulative loss of BMV agricultural land within the District. However, Thanet District is overwhelmingly comprised of BMV agricultural land, and the process for minimising the use of BMV land in allocating necessary development is a required consideration of the Local Plan process in line with advice in paragraph 171 of the NPPF which is specific to plan-making, rather than the role of individual planning applications. Therefore, TDC will already have undertaken a cumulative assessment of the loss of BMV land in the District in allocating land for development.

Completed Development

- 16.32** The following additional or different likely significant effects as a result of the cumulative impact assessment have been identified:

- Socio-Economics:
 - In terms of employment, Manston Airport is expected to generate approximately 23,235 gross jobs. The cumulative effect on employment and the local economy is expected to increase from Negligible to be Major Beneficial when considered cumulatively with Manston Airport.