

A30 Chiverton to Carland Cross Environmental Statement

**Volume 6 Document Ref 6.4 ES Appendix 12.5
Agricultural impact assessment**

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Planning Act 2008
Infrastructure Planning (Applications: Prescribed Forms and Procedure)
Regulations 2009 (as amended)
APFP Regulation 5(2)(a)

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12.5 Agricultural Impact Assessment (AIA)

Introduction

- 12.5.1 This report presents an assessment of the potential effects of the proposed scheme on agriculture.
- 12.5.2 The assessment of impacts has been undertaken taking account of recommendations set out in the Design Manual for Roads and Bridges (Vol. 11, Section 3, Parts 6 and 11).
- 12.5.3 Given the linear nature of the proposed development, the potential impact on farm holdings in terms of land loss and, in particular, severance and access is acknowledged. These issues are compounded given the proposed development will provide a limited-access dual-carriageway as opposed to the existing A30 which has numerous side road accesses.

Scope and Assessment Methodology

Scope

- 12.5.4 The scope of this assessment is to identify and predict the likely construction and long-term effects of the proposed development on agricultural resources after the incorporation of mitigation measures.
- 12.5.5 The framework for undertaking an Environmental Assessment is set out in the EC Directive '*The Assessment of the Effects of Certain Public and Private Projects on the Environment*¹' which is given force in the UK by the 'Town and Country Planning (Environmental Impact Assessment) Regulations².
- 12.5.6 This framework does not, however, contain detailed guidance on the specific aspects of agriculture which should be included in an impact assessment, and the manner in which they should be treated. Therefore, the general approach adopted by this study has been derived from the present planning advice from central and local Government which provides a guide to the factors which ought to be examined in an assessment of the impacts of development proposals upon agriculture, as well as a policy framework within which weight can be attached to the significance of particular impacts.
- 12.5.7 National land use development policies contained within the National Planning Policy Framework (NPPF)³ seek to safeguard scarce natural resources in the long-term national interest and give protection to the best and most versatile agricultural land (that in Grades 1, 2 and 3a).
- 12.5.8 The inherent quality of soil, as distinct to its agricultural value, is recognised in paragraph 170 of the NPPF and in Defra's Soil Strategy for England⁴ which seeks to encourage the sustainable management of soil resources.

¹ *The Assessment of the Effects of Certain Public and Private Projects on the Environment* (2011/92/EU), EC Directive, December 2011

² *Town and Country Planning (Environmental Impact Assessment) Regulations 2017 (SI No 571)*,

³ *National Planning Policy Framework, Ministry of Housing, Communities and Local Government, 2018*

⁴ *Soil Strategy for England, Defra, 2009*

- 12.5.9 The document provides a general imperative seeking to ensure the proper consideration of soil implications during the planning and development process, and to reduce the effect of the construction and development sectors on the long term functioning of soils. In the latter respect, Defra has published a Code of Practice⁵ for the sustainable use of the soils on construction sites which requires:
- a) identification of soil resources at an early stage in the development process;
 - b) improved planning of soil use;
 - c) a better level of soil management during project implementation, including sustainable use of surplus soil;
 - d) maintenance of soil quality and function both on and off site;
 - e) avoidance of soil compaction and erosion (with a consequent reduction in flooding and water pollution); and
 - f) an improved knowledge and understanding of soil at all levels in the construction industry, including soil amelioration techniques.
- 12.5.10 With regard to farm businesses it remains the Government's intention to maintain an environment in which a competitive and sustainable agricultural industry with a strong market focus, can flourish.
- 12.5.11 These policy objectives form the basis of the assessment of the impact of the proposed development on agriculture, and have defined the scope of the impacts to be identified and examined in this study. These are:
- g) the quantity and quality of agricultural land that would be permanently taken;
 - h) the impact of land loss and severance on farm businesses;
 - i) the loss of agricultural buildings and other farm infrastructure; and
 - j) the potential for construction impacts, such as disruptions to field drainage and irrigation, nuisance from dust and noise which could adversely affect land, livestock and farming activities.
- 12.5.12 Information on the extent and quality of agricultural land that would be affected by the Scheme has been assessed by means of a desk-assessment and is reported below.
- 12.5.13 Information regarding individual farm holdings has been collected by questionnaire, land registry records and complemented by stakeholder liaison.

Assessment Methodology

- 12.5.14 The approach to the assessment utilises a combination of receptor sensitivity and magnitude of impact to determine significance.
- 12.5.15 The relative sensitivity of agricultural land is scaled according to the Agricultural Land Classification (ALC) system as set out in Table 12-1.

Table 12-1 Receptor Sensitivity

Receptor Sensitivity	Criteria
High	Grade 1
Medium	Grades 2 and 3a
Low	Grades 3b and 4
Negligible	Grade 5

⁵ Construction Code of Practice for the Sustainable Use of Soils on Construction Sites, Defra, 2009

- 12.5.16 The magnitude of an effect represents its severity. Limited guidance on magnitude is available and the assessment at a scheme level has therefore been guided by the requirement to consult Natural England where development would involve loss of 20ha or more of high quality agricultural land in Grades 1, 2 and Subgrade 3a (Best and Most Versatile land, 'BMV').
- 12.5.17 For the purposes of this assessment, a land take of more than 20ha is considered to be of a large magnitude, with lower magnitudes scaled from this as per Table 12-2.
- 12.5.18 There is no standardised method for determining the effects of development proposals on agricultural holdings and thus professional judgement has been used for this assessment.
- 12.5.19 It must be noted that the total extent of farm holdings has not been established as part of the scheme, however, engagement with landowners, their agents and tenants has established the size (ha) of the plots directly affected by the scheme. The assessment does not therefore assess the effects of the proposed scheme on the viability of a farm holding, rather, it considers the potential effect on the use of the land it temporarily or permanently impacts. As such, it may be that a significant effect on a plot directly impacted by the proposed scheme would or would not have a significant impact on the ongoing operation of the farm holding business.
- 12.5.20 Where a significant impact on the ongoing operation of the farm holding business is identified through commercially sensitive discussions between a landowner and Highways England, where necessary, ongoing land owner and tenant engagement with Highways England will seek to establish appropriate mitigation and/or compensation. Any necessary land negotiations and acquisition(s) will be considered by Highways England in accordance with its relevant Compensation Code and discussions with the District Valuer.
- 12.5.21 Table 12-2 sets out the classification criteria which have been used when considering the potential impacts of the scheme at the plot / holding level.

Table 12-2 Magnitude of effects

Magnitude of Impact	Land Take (Scheme Wide)	Plot Level Assessment
High	More than 20 hectares BMV	>50% of a plot lost Plot completely severed with no access provided Loss of main farm building / property
Medium	5 – 20 hectares BMV	>25 – 50% of a plot lost Access provided via public highway Loss or damage to infrastructure affecting use
Low	1 – 5 hectares BMV	>10-25% of a plot lost Access provided by private means Loss or damage to infrastructure which does not affect use
Negligible	Less than 1 hectare BMV	<10% of a plot lost No new severance No impact on farm infrastructure

12.5.22 Impacts can be categorised as direct or indirect, beneficial or adverse. Significance of the impact is determined as per Table 12-3.

Table 12-3 Significance

Sensitivity	Magnitude of impact			
	High	Medium	Low	Negligible
High	Significant	Moderate	Minor	Negligible
Medium	Moderate	Minor	Minor	Negligible
Low	Minor	Minor	Minor	Negligible
Negligible	Negligible	Negligible	Negligible	Negligible

Baseline Conditions

Agricultural Land

12.5.23 The Agricultural Land Classification (ALC) system provides a framework for classifying land according to the extent to which its physical or chemical characteristics impose long-term limitations on agricultural use.

12.5.24 The principal physical factors influencing agricultural production are climate, site and soil. These factors together with interactions between them form the basis for classifying land into one of five grades; Grade 1 land being of excellent quality and Grade 5 land of very poor quality. Grade 3, which constitutes about half of the agricultural land in England and Wales, is now divided into two subgrades designated 3a and 3b.

12.5.25 Data provided by Reading Agricultural (Volume 6, Document 6.2, Appendix 12.4 Agricultural Land Classification and Soil Resources Report, June 2018) provides details of the land required and the associated ALC Grade. This is summarised at a scheme wide level in Table 12-4.

Table 12-4 ALC Data Scheme Wide

Grade	Description	Area (ha)	% of agricultural land
1	Excellent quality	0	0%
2	Very good quality	69.9	47%
3a	Good quality	44.3	30%
3b	Moderate quality	31.4	21%
4	Poor quality	0	0%
5	Very poor quality	1.9	1%
Total ALC agricultural land		147.5	100%
Other land (non-agricultural)		64.3	-
TOTAL		211.8	-

12.5.26 It should be noted that the other land (non-agricultural land) figure includes all of that type of land within the Order limits, whereas this report considers land taken within farm holdings only. As such, the non-agricultural land figure hereafter is lower (49.2ha) than the scheme wide calculations (64.3) undertaken by Reading Agricultural.

12.5.27 In total, the proposed scheme passes through 43 agricultural land holdings and brings potential effects (temporary and/or permanent) to 125 different agricultural plots. Plot data, land holdings and ALC data across the proposed scheme is shown in Volume 6, Document Ref 6.3, ES Figure 12.6.

Agro-climatic factors

12.5.28 Agro-climatic data for the north and south of the survey area have been interpolated from the Meteorological Office's standard 5km grid point data set at representative altitudes of 120m and 135m AOD, and are given in Table 12-5. The area is warm and very wet with moderate to moderately small crop moisture deficits. The Field Capacity Day (FCD) regimes are longer than is the average for lowland England and considered to be unfavourable for providing opportunities for agricultural field work. There is an overriding climatic limitation within the survey area to Grade 2.

Table 12-5 Agro-climatic factors

	Carland Cross	Chiverton
Average Annual Rainfall	1,127mm	1,119mm
Accumulated Temperatures > 0C	1,506 day	1,492 day
Field Capacity Days	218 days	217 days
Average Moisture Deficit, Wheat	84mm	82mm
Average Moisture Deficit, potatoes	71mm	68mm

Soil Parent Material

12.5.29 The underlying geology mapped by the British Geological Survey⁶ in the north of the survey area, between Carland Cross and north of Marazanvose, is the Grampound Formation, comprising thinly interlaminated slaty mudstone and siltstone. Sporadic beds of sandstone and limestone may also be present. South of Marazanvose, interbedded slaty mudstone and sandstone of the Porthowan Formation is mapped.

12.5.30 In the vicinity of Carland Cross, Zelah and Marazanvose, superficial deposits of glacial Head are mapped. These deposits may include poorly sorted gravel, sand and clay.

12.5.31 The Soil Survey of England and Wales soil association mapping⁷ (1:250,000 scale) shows the Denbigh 2 association to be present throughout the survey area. This association consists of well drained, fine loamy soils overlying slate or slate rubble. In south Cornwall, some slates are locally more weathered to slowly permeable clays, though most soils are of Wetness Class (WC) I.

12.5.32 Around Carland Cross, Chybucca and Three Burrows, there are pockets of the Sportsmans association. These soils occur on ridge tops and valley sides over sandstones, slates and shales and are characterised by slowly permeable and

⁶ British Geological Survey (2017). Geology of Britain viewer, <http://mapapps.bgs.ac.uk/geologyofbritain/home.html>

⁷ Soil Survey of England and Wales (1984). Soils of South West England (1:250,000), Sheet 5

compact subsoil overlain by more permeable loamy material. Sportsmans soils are typically of WC III⁸.

Agricultural Plots / Land Holdings

12.5.33 The information presented in Table 12-6 provides a summary of the agricultural plots / land holdings directly affected by the proposed scheme. Where there are multiple plots within one land holding, a cumulative total is shown.

Table 12-6 Plots/land holdings effected

Plot No(s).	Name	Area of plot(s) affected (ha)
20/1	Callestick Farm	2.39
21/1	Creegmeor Farm	36.38
106/3	Lower Ventongimps Farm	38.42
5/3	Greenacres Farm	3.40
34/2, 34/3, 888/66	D Mewton & R.J Mewton	39.49
14/1, 6/2, 6/4, 6/6, 6/8, 888/11, 888/12, 888/19, 888/20, 888/22	Acland Farm	30.42
16/1	Four Burrows Farm	0.83
999/13	Tresawsen Farm	2.23
888/70	Zelah Lane Farm	0.01
15/2, 15/3, 15/4, 28/1, 888/46	Hillview Farm	74.37
36/1, 36/3, 888/122	Boswellick Farm	59.65
31/1	Nancarrow Farm	0.05
19/1, 19/2	Callestick Vean Farm	47.90
123/3	Nancarrow Farm	2.40
29/1, 888/48, 888/49, 888/51	Nanteague Farm	51.27
51/1, 888/112	Rowbrook Farm	2.12
23/43, 23/5, 888/38	Hillview Farm	28.98
27/2, 888/53	Marazan Farm	3.02
999/8	Silver Springs Farm	7.20
40/2	Tolgroggan Farm	36.01
3/8, 3/10, 3/11, 3/14, 888/93	Cornwall Council	48.13
89/3	Silverdene	5.03
53/1, 53/2, 53/3, 888/94, 888/96	The Bungalow, Truthan Barton	46.34
54/1	J Alan and B Eugenie	42.88
999/1, 999/11	Maurice Crouch Growers Ltd	12.55
25/1	Choon Allet	14.97
888/111, 999/22	4 Creekside View	8.22
121/1, 888/56	Elm Tree Estates Ltd	2.04
10/1	Silverwell Forge	1.56
1/10, 1/11, 1/113, 1/12, 1/13, 1/147, 1/148, 1/15, 1/150, 1/151, 1/153, 1/154, 1/155,	Highways England	38.08

⁸ Findlay et al. (1984). Soils and Their Use in South West England, Soil Survey of England and Wales, Bulletin 14. Harpenden

Plot No(s).	Name	Area of plot(s) affected (ha)
1/17, 1/19, 1/22, 1/23, 1/31, 1/32, 1/33, 1/34, 1/35, 1/36, 1/37, 1/38, 1/39, 1/45, 1/49, 1/52, 1/53, 1/54, 1/8, 1/9, 1/94		
191/2	J Elliot	5.37
194/1	Probus Garden Estate Ltd	2.64
246/1	A Mccurrach	0.98
26/6, 888/57	N E T Holman	66.27
3/4	J Edwards	0.28
30/1	Marazan Farm	0.80
32/34, 32/58, 32/68	Murray, Kennedy and St Clair	333.93
42/1, 42/2, 42/3, 888/72, 888/73, 888/74, 888/75, 888/76, 888/77, 888/85, 888/87	Mr Galsworthy	84.12
43/1	A J Lloyd and B M Lloyd	0.13
50/1, 50/3	S J Penrose and J Penrose	0.002
999/10	W Salmon	3.53
999/3	G Richards	52.06
999/31	C Pascoe	1.29
TOTAL		1,237.8

12.5.34 The total figure of 1,237.8ha shown above represents the total area of all plots affected. The following sections consider land take from these plots for the scheme.

Assessment of Effects

Agricultural Land – Temporary Land Take

12.5.35 The proposed scheme would result in the temporary loss of agricultural land as set out in Table 12-7 below.

Table 12-7 Temporary Land Take

Land Grade	Area Temporarily Lost (ha)
Grade 2	16.7
Grade 3a	11.4
Grade 3b	9.8
Non-agricultural Land	15
TOTAL ALC	52.9

12.5.36 As shown by the data, the proposed scheme would lead to the temporary loss of approximately 28.1ha of agricultural land classified as best and most versatile (Grades 2 and 3a) with a further 9.8ha of lower quality agricultural land and 15ha of non-agricultural land also temporarily lost. Based on criteria set in Section 2 and given the majority of land would be BMV a medium sensitivity has been

applied. With over 20ha of land being required the magnitude of impact would be high, leading to a moderate adverse effect which would be significant.

12.5.37 However, given the temporary nature of the land take and with mitigation proposed in Volume 6, Document Ref 6.4, ES Appendix 16.1 Outline CEMP which would see land returned to its former use, the construction phase of the scheme is not considered to lead to any long-term residual significant effects on agricultural land.

12.5.38 When considering temporary land take at the farm holding level, Table 12-8 shows the requirements to enable construction of the proposed scheme:

- 34 holdings experiencing temporary land take of less than 10% (negligible magnitude);
- 5 holdings experiencing temporary land take of between 10 and 25% (low magnitude);
- 2 holding experiencing temporary land take between 26 and 50% (medium magnitude); and
- 2 holding experiencing temporary land take of over 50% (high magnitude).

Table 12-8 Temporary land take by holding / plot

Plot No(s).	Name	Area of affected plot(s) (ha)	Temporary land take (ha)	% of plot lost
20/1	Callestick Farm	2.39	0	0
21/1	Creegmeor Farm	36.38	0.57	2
106/3	Lower Ventongimps Farm	38.42	4.58	12
5/3	Greenacres Farm	3.40	0.005	0
34/2, 34/3, 888/66	D Mewton & R.J Mewton	39.49	0.30	1
14/1, 6/2, 6/4, 6/6, 6/8, 888/11, 888/12, 888/19, 888/20, 888/22	Acland Farm	30.42	0.37	1
16/1	Four Burrows Farm	0.83	0.01	1
999/13	Tresawsen Farm	2.23	1.03	46
888/70	Zelah Lane Farm	0.01	0	0
15/2, 15/3, 15/4, 28/1, 888/46	Hillview Farm	74.37	3.43	5
36/1, 36/3, 888/122	Boswellick Farm	59.65	3.96	7
31/1	Nancarrow Farm	0.05	0.001	1
19/1, 19/2	Callestick Vean Farm	47.90	0.58	1
123/3	Nancarrow Farm	2.40	0.16	7
29/1, 888/48, 888/49, 888/51	Nanteague Farm	51.27	3.09	6
51/1, 888/112	Rowbrook Farm	2.12	0	0
23/43, 23/5, 888/38	Hillview Farm	28.98	1.78	6
27/2, 888/53	Marazan Farm	3.02	0.06	2
999/8	Silver Springs Farm	7.20	0.99	14

Plot No(s).	Name	Area of affected plot(s) (ha)	Temporary land take (ha)	% of plot lost
40/2	Tolgroggan Farm	36.01	0.63	2
3/8, 3/10, 3/11, 3/14, 888/93	Cornwall Council	48.13	0.49	1
89/3	Silverdene	5.03	0.04	1
53/1, 53/2, 53/3, 888/94, 888/96	The Bungalow, Truthan Barton	46.34	1.12	2
54/1	J Alan and B Eugenie	42.88	5.76	13
999/1, 999/11	Maurice Crouch Growers Ltd	12.55	1.20	10
25/1	Choon Allet	14.97	0.94	6
888/111, 999/22	4 Creekside View	8.22	1.31	16
121/1, 888/56	Elm Tree Estates Ltd	2.04	1.24	61
10/1	Silverwell Forge	1.56	0.07	4
1/10, 1/11, 1/113, 1/12, 1/13, 1/147, 1/148, 1/15, 1/150, 1/151, 1/153, 1/154, 1/155, 1/17, 1/19, 1/22, 1/23, 1/31, 1/32, 1/33, 1/34, 1/35, 1/36, 1/37, 1/38, 1/39, 1/45, 1/49, 1/52, 1/53, 1/54, 1/8, 1/9, 1/94	Highways England	38.08	14.32	38
191/2	J Elliot	5.37	0.01	0
194/1	Probus Garden Estate Ltd	2.64	0.09	4
246/1	A Mcurrach	0.98	0.02	2
26/6, 888/57	N E T Holman	66.27	0.02	0
3/4	J Edwards	0.28	0.26	91
30/1	Marazan Farm	0.80	0.02	3
32/34, 32/58, 32/68	Murray, Kennedy and St Clair	333.93	0.23	0
42/1, 42/2, 42/3, 888/72, 888/73, 888/74, 888/75, 888/76, 888/77, 888/85, 888/87	Mr Galsworthy	84.12	3.77	4
43/1	A J Lloyd and B M Lloyd	0.13	0	0
50/1, 50/3	S J Penrose and J Penrose	0.002	0	0
999/10	W Salmon	3.53	0.26	7
999/3	G Richards	52.06	0.11	0
999/31	C Pascoe	1.29	0	0

12.5.39 In general, those holdings where temporary land take is anticipated to be higher are those where temporary construction compounds or material storage areas are

proposed on their land. Best practice construction mitigation would be employed throughout this stage of the project and all temporary land take would be returned to the land owner in a restored state following the completion of construction activities. Further details in relation to the construction management to be employed can be found in Volume 6, Document Ref 6.4, ES Appendix 16.1 Outline CEMP.

- 12.5.40 In assessing the impact of these temporary works, all farm holdings have been classified as medium sensitivity reflecting the temporary impact on BMV agricultural land at the majority of holdings.
- 12.5.41 Given the relatively small areas of land required to facilitate construction activities, the temporary nature of the works and the proposed management outlined within the CEMP, potential effects at the majority of plots / holdings are considered to be of negligible or low magnitude and therefore not significant.
- 12.5.42 The 2 holdings that are anticipated to experience temporary land take of 26-50% would experience a minor adverse and temporary effect given the scale of magnitude (medium), however this is not significant.
- 12.5.43 The 2 holdings where temporary land take would constitute over 50% would experience a moderate adverse and temporary effect, which would be significant. However, this effect would be mitigated through best practice construction practices and following the return of land to agricultural use there are anticipated to be no long-term adverse effects from the construction phase. It is worth noting that 1 of the holdings effected where over 50% of the land take is temporary amounts to less than 1ha in size.
- 12.5.44 Severance during construction would be minimised through careful siting of construction compounds and lay down areas and careful planning of construction activities through consultation with the landowners, and mitigated in places by new temporary and permanent accesses. The construction stage is therefore not anticipated to lead to any significant effects on land holdings in terms of ongoing access or severance issues.

Wider potential temporary effects during construction

- 12.5.45 Alongside the above potential effects on agricultural land and the individual plots during construction, there are several potential wider effects that could arise during to construction activities. These are considered below.
- 12.5.46 Crop loss associated with temporary land take can be reduced by giving advanced warning to enable farmers to plan ahead and consideration of field drainage impacts during the design phase.
- 12.5.47 Certain farming activities could be affected by increased construction traffic on the local roads and traffic management measures such as temporary lights / diversions. Silage making for example can be constrained by timeliness as it requires uninterrupted flow of activity. Similarly, unrestricted access to fields is crucial during certain times of the year (e.g. harvesting) and activities can be disrupted should the transport chain between farm and field be cut off.
- 12.5.48 In areas of land which would be temporarily acquired, soils would be managed in accordance with DEFRA (2009) 'Construction Code of Practice for the Sustainable Use of Soils on Construction Sites' whilst a Soils Management Plan would be followed, which will include details of how agricultural land will be

restored at the end of construction. Nuisance from noise, dust and visual impacts due to movement of construction vehicles will be mitigated through considerate construction management including the use of screening (temporary or permanent) which will be outlined in further detail in an EMP to be submitted as part of the ES with the DCO application.

- 12.5.49 In extreme circumstances construction activities can cause disruption that could have an adverse impact on livestock or crops. For example, significant construction noise could affect livestock and significant dust and pollution generation could contaminate crops. Although with best practice construction methods this is considered unlikely, it should be noted and controlled where possible (e.g. frequent use of watering to suppress dust during adverse conditions).
- 12.5.50 These potential wider effects should be considered further at the detailed design stage and following the appointment of a contractor. Ongoing consultation with landowners and tenants aim to help Highways England and its contractor take into account any specific needs and inform mitigation measures as appropriate, to be agreed between the relevant parties if necessary. Appropriate financial compensation would be explored for landowners where temporary land acquisition is required, through negotiations.

Agricultural Land – Permanent Loss

- 12.5.51 The proposed scheme would result in the permanent land take / loss of agricultural land as set out in Table 12-9.

Table 12-9 Permanent Land Take

Land Grade	Area Permanently Lost (ha)
Grade 2	53.2
Grade 3a	32.9
Grade 3b	21.7
Grade 5	1.9
Non-agricultural Land	34.3
TOTAL ALC	109.7

- 12.5.52 As shown by the data, the proposed scheme would lead to the loss of approximately 86.1ha of agricultural land classified as best and most versatile (Grades 2 and 3a) with a further 23.6ha of lower quality agricultural land and 34.3ha of non-agricultural land also lost. Based on criteria set in Section 2 and given the majority of land would be BMV (Grades 2 and 3a) a medium sensitivity has been applied. With over 20ha of land being required the magnitude of impact would be high, leading to a moderate adverse effect, which would be significant.
- 12.5.53 When looking at permanent land take at the individual holding level, Table 12-10 shows the proportion of land which will be lost as a result of the proposed scheme.

Table 12-10 Permanent Land Take by Holding

Plot No(s).	Name	Area of affected plot(s) (ha)	Permanent land take (ha)	% of plot lost	% BMV of land take
20/1	Callestick Farm	2.39	2.39	100	99.2
21/1	Creegmeor Farm	36.38	2.54	7	97
106/3	Lower Ventongimps Farm	38.42	0	0	0
5/3	Greenacres Farm	3.40	0	0	0
34/2, 34/3, 888/66	D Mewton & R.J Mewton	39.49	3.57	9	41
14/1, 6/2, 6/4, 6/6, 6/8, 888/11, 888/12, 888/19, 888/20, 888/22	Acland Farm	30.42	18.97	62	96.7
16/1	Four Burrows Farm	0.83	0.005	1	100
999/13	Tresawsen Farm	2.23	0.15	7	96.9
888/70	Zelah Lane Farm	0.01	0.01	100	0
15/2, 15/3, 15/4, 28/1, 888/46	Hillview Farm	74.37	10.14	14	87.2
36/1, 36/3, 888/122	Boswellick Farm	59.65	1.98	3	74.5
31/1	Nancarrow Farm	0.05	0.05	99	0
19/1, 19/2	Callestick Vean Farm	47.90	3.83	8	98.5
123/3	Nancarrow Farm	2.40	0.73	30	0
29/1, 888/48, 888/49, 888/51	Nanteague Farm	51.27	12.8	25	59.4
51/1, 888/112	Rowbrook Farm	2.12	1.56	74	72.5
23/43, 23/5, 888/38	Hillview Farm	28.98	7.92	27	97.8
27/2, 888/53	Marazan Farm	3.02	1.46	48	0
999/8	Silver Springs Farm	7.20	1.38	19	1.1
40/2	Tolgroggan Farm	36.01	3.07	9	93.6
3/8, 3/10, 3/11, 3/14, 888/93	Cornwall Council	48.13	12.19	25	55.2
89/3	Silverdene	5.03	0	0	0
53/1, 53/2, 53/3, 888/94, 888/96	The Bungalow, Truthan Barton	46.34	7.13	15	79.4
54/1	J Alan and B Eugenie	42.88	0.80	2	0
999/1, 999/11	Maurice Crouch Growers Ltd	12.55	1.37	11	84.1
25/1	Choon Allet	14.97	0.11	1	1.9
888/111, 999/22	4 Creekside View	8.22	1.77	22	91.4
121/1, 888/56	Elm Tree Estates Ltd	2.04	0	0	0
10/1	Silverwell Forge	1.56	0	0	0
1/10, 1/11, 1/113, 1/12, 1/13, 1/147,	Highways England	38.08	22.15	58	4.9

Plot No(s).	Name	Area of affected plot(s) (ha)	Permanent land take (ha)	% of plot lost	% BMV of land take
1/148, 1/15, 1/150, 1/151, 1/153, 1/154, 1/155, 1/17, 1/19, 1/22, 1/23, 1/31, 1/32, 1/33, 1/34, 1/35, 1/36, 1/37, 1/38, 1/39, 1/45, 1/49, 1/52, 1/53, 1/54, 1/8, 1/9, 1/94					
191/2	J Elliot	5.37	0	0	0
194/1	Probus Garden Estate Ltd	2.64	0	0	0
246/1	A Mccurrach	0.98	0.03	3	0
26/6, 888/57	N E T Holman	66.27	0.47	1	0
3/4	J Edwards	0.28	0.03	9	99.8
30/1	Marazan Farm	0.80	0.78	97	0
32/34, 32/58, 32/68	Murray, Kennedy and St Clair	333.93	14.09	4	22.8
42/1, 42/2, 42/3, 888/72, 888/73, 888/74, 888/75, 888/76, 888/77, 888/85, 888/87	Mr Galsworthy	84.12	9.26	11	89.9
43/1	A J Lloyd and B M Lloyd	0.13	0.01	9	0
50/1, 50/3	S J Penrose and J Penrose	0.002	0.002	100	100
999/10	W Salmon	3.53	1.06	30	0.2
999/3	G Richards	52.06	0.02	0	100
999/31	C Pascoe	1.29	0.13	10	0

12.5.54 The data above shows the following broad effects:

- 22 holdings where under 10% will be lost (negligible magnitude);
- 9 holdings where between 10 and 25% will be lost (low magnitude);
- 4 holdings where between 26 and 50% will be lost (medium magnitude); and
- 8 holdings where over 50% will be lost (high magnitude).

12.5.55 For those 8 holdings with a high magnitude (over 50% lost), it should be noted that 4 of these do not contain any BMV agricultural land. For these holdings whilst the magnitude would therefore be high, the sensitivity would be considered as negligible to low, leading to an overall negligible to minor adverse impact which would not be significant.

12.5.56 For the remaining 4 holdings their sensitivity would be considered medium and when combined with a high magnitude they would experience moderate adverse effects, which would be significant. It should however be noted that their plot areas and land taken is less than 1ha and therefore whilst the impact in terms of

proportion of plot lost is high, the overall effect is considered to be minor adverse and not significant.

- 12.5.57 For all other holdings where permanent land take is required, even with an assumed medium sensitivity (as a worst case), the magnitude of effect would range between medium and negligible, leading to negligible, low or minor effects which would not be significant.
- 12.5.58 Potential severance effects during operation have been considered as part of the design development and the proposed scheme includes a number of new private means of access in order to mitigate potential severance effects. These arrangements have been designed in consultation with effected landowners and should therefore meet their long-term needs. A number of new overbridges and underpasses have also been included in the proposed scheme and designed to accommodate farm vehicles where necessary. The existing A30 would remain in use, providing continued access to farm holdings and plots where these currently take access from this road.
- 12.5.59 Where this mitigation is deemed insufficient, Highway's England would seek to mitigate through land negotiations in accordance with their relevant Compensation Code and discussions with the District Valuer.
- 12.5.60 Overall, given that steps have been or will be taken by Highway's England to avoid complete severance of land with no access, it is not considered that the proposed scheme would lead to any significant severance effects during operation.

If you need help accessing this or any other Highways England information, please call **0300 123 5000** and we will help you.

