

Hampshire Water Transfer and Water Recycling Project

Environmental Statement – Appendix 12.2 Agricultural land assessment criteria

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1 Introduction

1.1 Purpose

- 1.1.1 This is a technical appendix of Environmental Statement (ES) Chapter 12 Land use and agriculture, Volume I (Document reference 6.1, DCO Volume 6).
- 1.1.2 This appendix sets out the discussions that have taken place with Natural England (NE) on the assessment methodology to establish the significance of effects arising from the Hampshire Water Transfer and Water Recycling Project (hereafter referred to as the 'Proposed Development').
- 1.1.3 This note follows a meeting held with NE on 23 October 2024 following the publication of the Preliminary Environmental Information (PEI) Report [1] and NE's response to the Summer 2024 Consultation. NE advised that the approach in the PEI Report of using a modified Environmental Impact Assessment (EIA) methodology derived in part from the Design Manual for Roads and Bridges (DMRB) LA109 [2] methodology is not the most appropriate criteria to use and that the 2022 guidance from the Institute of Sustainability and Environmental Professionals (ISEP) (formerly the Institute of Environmental Management and Assessment) [3] should be used instead.
- 1.1.4 Southern Water Services Limited ('the Applicant') noted that the significance criteria set out in the PEI Report were developed specifically to assess the likely significant effects associated with a project of this nature, which primarily affects a substantial corridor of agricultural land but in a short-term and temporary way. While the Proposed Development includes linear components, DMRB was relied on for the agricultural land assessment and for other topics because it provides the most appropriate guidance for evaluating effects associated with developments that include linear elements. The Applicant noted that the ISEP guidance was not considered appropriate as it sets all temporary reversible losses of agricultural land as a minor magnitude of impact which may not reflect the scale of this Proposed Development and may therefore risk under-estimating the significance of temporary impacts of this Proposed Development.
- 1.1.5 It was agreed between the Applicant and NE that the Applicant should prepare a short technical note to set out the rationale for the assessment criteria set out in the PEI Report for NE to review and agree, which is appended to the ES.
- 1.1.6 The technical note was issued to NE in October 2025, with comments received from NE in December 2025. In summary, NE required the assessment to be undertaken in accordance with the ISEP guidance.
- 1.1.7 ES Chapter 12 Land use and agriculture, Volume I (Document reference 6.1, DCO Volume 6) has therefore used the ISEP guidance to assess the effects of the Proposed Development. This technical note sets out the differences between the approach adopted and results reported in the PEI Report and the ES because of using different assessment criteria.
- 1.1.8 Although the application of different significance criteria leads to a difference in the reporting of effects, with the approach taken by the Applicant at the PEI Report generally leading to the reporting of a higher level of effect than reported under the ISEP criteria, and as now reported in the ES, the principal mitigation measures

required are those set out in the Outline Soil Resource Management Plan (SRMP) (appended to the Outline Construction Environmental Management Plan (CEMP) (Document reference 7.1, DCO Volume 7)) which has been discussed and agreed between the Applicant and NE.

1.2 Development of the assessment criteria

- 1.2.1 The criteria for determining the significance of effect for land use and agriculture were set out initially in Tables 12-5, 12-6 and 12-7 of Volume 1 of the EIA Scoping Report (ES Appendix 5.1 EIA Scoping Report, Volume II, Document reference 6.2, DCO Volume 6).
- 1.2.2 Table 12-5 of the EIA Scoping Report set out broadly defined criteria for the sensitivity of receptors, using four categories based on the importance, rarity, geographical scale and potential for substitution.
- 1.2.3 The criteria for determining the magnitude of change were set out in Table 12-6 of the EIA Scoping Report, also with four categories. The description of impacts concentrated on the temporary losses of any land use type as a proportion of land within the study area, and for varying durations. Although the EIA Scoping Report (ES Appendix 5.1 EIA Scoping Report, Volume I (Document reference 6.1, DCO Volume 6)) acknowledged that the Proposed Development would not require any demolitions, it included the potential demolition of property, including agricultural buildings within the major magnitude of impact should any demolitions become necessary in the ongoing design of the Proposed Development. All permanent loss of land was also described as a major magnitude of impact.
- 1.2.4 The EIA Scoping Opinion (ES Appendix 5.2 EIA Scoping Opinion, Volume II (Document reference 6.2, DCO Volume 6)) issued in August 2023 made only one comment on Table 12-5 (Scoping Opinion ID 3.7.8) which was in respect of the impacts on the amenity of users of community facilities and commercial properties, where these are particularly sensitive to changes in their operating environment. No other comments on the significance criteria were made.
- 1.2.5 The PEI Report [1] developed the EIA Scoping Report criteria by adding specific criteria for agricultural land and soils. Table 12-7 of the PEI Report set out the sensitivity criteria and included peat soils and Grade 1 agricultural land as high sensitivity, aligned with receptors of high importance and rarity, international/national scale and very limited potential for substitution in line with the overarching guidelines set out in Table 5-3 of the PEI Report; with Grade 5 agricultural land at the other end of the scale categorised as negligible, aligned with very low importance and rarity, local scale.
- 1.2.6 Table 12-8 of the PEI Report added the temporary or permanent loss of more than 80ha of agricultural land to the description of major magnitude; the temporary or permanent loss of between 20ha and 80ha of agricultural land to the description of moderate magnitude; the temporary or permanent loss of between 5ha and 20ha of agricultural land to the description of minor magnitude; and the temporary or permanent loss of less than 5ha of agricultural land to the description of negligible magnitude.
- 1.2.7 The threshold of 80ha was selected for a major magnitude of impact because that is approximately the average size of farm holdings in the country, as set out in PEI Report Chapter 12 Land use and agriculture, Volume I and ES Chapter 12 Land

use and agriculture, Volume I (Document reference 6.1, DCO Volume 6). The threshold of 20ha was selected for a moderate magnitude because that is the threshold at which a local planning authority should consult NE about developments that involve the loss of best and most versatile (BMV) land but do not accord with a development plan [4]. As this is the level that introduces the national interest into local decision making, the loss of 20ha of BMV land represents a benchmark for the significant loss of BMV land.

- 1.2.8 PEI Report Chapter 5 EIA approach and methodology, Volume I and ES Chapter 5 EIA approach and methodology, Volume I (Document reference 6.1, DCO Volume 6), sets out that moderate and major effects should be reported as likely significant effects, and minor and neutral effects should be reported as not significant.
- 1.2.9 In order that the assessment criteria were consistent with the above, at the PEI Report stage the assessment criteria were designed to reflect that the loss of at least 20ha of BMV land would be reported as a likely significant effect, but also to acknowledge that there could be still greater effects (loss of substantially larger areas than 20ha) that would need to be captured and reported for a project of this scale and nature.
- 1.2.10 Guidance from the Planning Inspectorate in its Frequently Asked Questions on the Scoping Process for EIA [5] acknowledges at paragraph 8 that there may be some evolution of the methodological approach between the scoping stage and the submission of an application for development consent. The Planning Inspectorate advises that it is for the Applicant to demonstrate how an ES submitted as part of an application for development consent meets the requirements of Regulation 14(3)(a) of the of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 [6].
- 1.2.11 The ISEP guidance [3] has been used in the assessment of agricultural land presented in ES Chapter 12 Land use and agriculture, Volume I (Document reference 6.1, DCO Volume 6).
- 1.2.12 The assessment and significance criteria previously used in the PEI Report followed the same general approach as set out in the ISEP guidance, in assigning the level of significance according to the sensitivity of, and scale of impact on, agricultural land.
- 1.2.13 Sensitivity is generally related to the Agricultural Land Classification grade, with the higher grades being more sensitive, and magnitude of change generally to the type of impact and area of land affected.
- 1.2.14 However, there are differences in the terminology and detailed assessment criteria used, and so a sensitivity analysis has been carried out to demonstrate the consequences of applying the different significance criteria, and the differences in the significance of effect reported in the PEI Report and in ES Chapter 12 Land use and agriculture, Volume I (Document reference 6.1, DCO Volume 6).

2 Sensitivity analysis

2.1.1 A comparison of the sensitivity criteria for agricultural land used in the PEI Report and ES Chapter 12 Land use and agriculture, Volume I (Document reference 6.1, DCO Volume 6) is set out in Table 2-1. The criteria in the PEI Report are consistent with the generic criteria set out for the Proposed Development in Table 5-3 of ES Chapter 5 EIA approach and methodology, Volume I (Document reference 6.1, DCO Volume 6), which include four categories of sensitivity from high to negligible. The ISEP criteria have five categories, although the low and negligible categories are considered to be effectively the same.

2.1.2 BMV land, comprising Grades 1, 2 and 3a, is estimated by NE [7] to account for 42% of agricultural land in England and is not therefore a rare resource nationally. The approach taken in the PEI Report reflected that nearly half of the land in England is BMV by including the BMV grades in the upper two categories and the non-BMV grades in the lower two categories. At either end of the scale, the excellent quality (Grade 1) and the very poor quality (Grade 5) were distinguished from the remainder of the BMV or non-BMV categories.

Table 2-1 Sensitivity of agricultural land

Sensitivity	PEI Report Chapter 12	ISEP/ES Chapter 12
Very high	Category not used	Grades 1 and 2
High	Grade 1	Subgrade 3a
Medium	Grade 2 and Subgrade 3a	Subgrade 3b
Low	Subgrade 3b and Grade 4	Grades 4 and 5
Negligible	Grade 5	As for low sensitivity

2.1.3 A comparison of the magnitude of impact criteria is set out in Table 2-2. The rationale for the thresholds used in the PEI Report is set out in paragraphs 1.2.6 and 1.2.7 above.

Table 2-2 Magnitude of impact on agricultural land

Magnitude	PEI Report Chapter 12	ISEP/ES Chapter 12
Major	Temporary or permanent loss of more than 80ha of agricultural land (of any grade).	Permanent, irreversible loss of one or more soil functions or soil volumes (including permanent sealing or land quality downgrading) over an area of more than 20ha or loss or gain of soil-related features, as advised by other topic specialists in EIA team (including effects from temporary developments*)
Moderate	Temporary or permanent loss of between 20ha and 80ha of agricultural land (of any grade).	Permanent, irreversible loss of one or more soil functions or soil volumes, over an area of between 5 and 20ha or loss or gain of soil-related features, as advised by other topic specialists in EIA team (including effects from temporary developments*)

Magnitude	PEI Report Chapter 12	ISEP/ES Chapter 12
Minor	Temporary or permanent loss of between 5ha and 20ha of agricultural land (of any grade).	Permanent, irreversible loss over less than 5ha or a temporary, reversible loss of one or more soil functions or soil volumes or temporary, reversible loss or gain of soil-related features, as advised by other topic specialists in EIA team
Negligible	Temporary or permanent loss of less than 5ha of agricultural land (of any grade).	No discernible loss or reduction or improvement of soil functions or soil volumes that restrict current or proposed land use

- 2.1.4 The asterisk in the ISEP guidance [3] that follows the magnitude criteria for major and moderate impacts says that temporary developments can result in a permanent impact if resulting disturbance or land use change causes permanent damage to soils. This advice relates to impacts on other soil-related features as advised by other environmental specialists rather than to the temporary loss of agricultural land such as for food production. These impacts are considered in the other relevant ES topic chapters.
- 2.1.5 Given that the mitigation measures required to ensure that the temporary loss of agricultural land does not lead to a permanent loss of such land are set out in the Outline SRMP (appended to the Outline CEMP (Document reference 7.1, DCO Volume 7)), it is evident that the loss of agricultural land for food production remains either permanent, with the order of magnitude dependant on the scale of loss, or temporary.
- 2.1.6 The temporary use of land to install a pipeline and the other temporary elements required to construct the Proposed Development, with the same soils reinstated following installation and construction, and in accordance with a SRMP secured by the Development Consent Order, cannot lead to a permanent loss of agricultural land for food production. The correct reading of the ISEP magnitude criteria is therefore that temporary, reversible losses of agricultural land for the function of food production should be treated as a minor magnitude of impact.
- 2.1.7 Table 12-9 of PEI Report Chapter 12 Land use and agriculture, Volume I [1] set out the significance matrix used in the PEI assessment, and is reproduced as Table 2-3.

Table 2-3 Likely significance of effects matrix (PEI Report)

		Magnitude of impact			
		Major	Moderate	Minor	Negligible
Sensitivity (value) of receptor or resource	High	Major	Major	Moderate	Minor
	Medium	Major	Moderate	Minor	Neutral
	Low	Moderate	Minor	Minor	Neutral
	Negligible	Minor	Minor	Neutral	Neutral

- 2.1.8 The ISEP significance matrix uses different terminology to that used in the PEI Report and ES, with for example a major effect described in the ISEP guidance as

large or very large, and a minor effect as slight. Nevertheless, the significance and scale of effect in the ISEP significance matrix is used as the basis (with amended terminology) in the ES Chapter 12 Land use and agriculture, Volume I (Document reference 6.1, DCO Volume 6) significance matrix, which is shown below as Table 2-4.

Table 2-4 Likely significance of effects matrix (ES Chapter 12 Land use and agriculture, Volume I (Document reference 6.1, DCO Volume 6), adapted from ISEP)

		Magnitude of impact			
		Major	Moderate	Minor	Negligible
Sensitivity (value) of receptor or resource	Very High	Major	Major	Moderate	Minor
	High	Major	Moderate	Minor	Minor
	Medium	Moderate	Moderate	Minor	Neutral
	Low	Minor	Minor	Neutral	Neutral

2.1.9 Table 2-5 sets out a comparison of the principal effects on BMV and non-BMV agricultural land as reported in the PEI Report Chapter 12 Land use and agriculture, Volume I and the ES Chapter 12 Land use and agriculture, Volume I (Document reference 6.1, DCO Volume 6), based on the different significance criteria set out in Table 2-1 and Table 2-2 and the respective significance matrices in Table 2-3 and Table 2-4.

Table 2-5 Comparison of effects on agricultural land reported in PEI Report Chapter 12 Land use and agriculture, Volume I and ES Chapter 12 Land use and agriculture, Volume I (Document reference 6.1, DCO Volume 6)

Effect	PEI Report Chapter 12	ISEP/ES Chapter 12
Temporary loss of BMV agricultural land (114ha)	Major magnitude of impact on a medium sensitivity receptor = major adverse effect (significant)	Minor magnitude of impact (a temporary, reversible loss of one or more soil functions) on a very high and high sensitivity receptor = moderate adverse effect on the very high sensitivity receptor (significant) to minor adverse effect on the high sensitivity receptor (not significant)
Temporary loss of non-BMV land (126ha)	Major magnitude of impact on a low sensitivity receptor = moderate adverse effect (significant)	Minor magnitude of impact on a medium and low sensitivity receptor = minor adverse or neutral effect (not significant)
Permanent loss of BMV land (1.6ha)	Negligible magnitude of impact on a medium sensitivity receptor = neutral effect (not significant)	Minor magnitude of impact on a very high and high sensitivity receptor = moderate adverse effect on the very high sensitivity receptor (significant) to minor adverse effect on the high sensitivity receptor (not significant)
Permanent loss of non-BMV land (1.1ha)	Negligible magnitude of impact on a low sensitivity receptor = neutral effect (not significant)	Minor magnitude of impact on a medium and low sensitivity receptor = minor adverse or neutral effect (not significant)

- 2.1.10 The approach taken in the PEI Report reported the temporary loss of 114ha of BMV agricultural land as major adverse whereas the ES Chapter 12 Land use and agriculture, Volume I (Document reference 6.1, DCO Volume 6) based on the ISEP criteria assesses this loss as moderate to minor adverse. The moderate adverse effect on the very high sensitivity receptor of Grades 1 and 2 agricultural land is assessed as significant.
- 2.1.11 The temporary loss of 126ha of non-BMV land was reported as a significant moderate adverse effect in the PEI Report but is assessed as a not significant effect in ES Chapter 12 Land use and agriculture, Volume I (Document reference 6.1, DCO Volume 6) based on the ISEP criteria.
- 2.1.12 The lower significance of effect arising from the approach adopted for the ES is largely because all temporary, reversible losses of soil functions (such as food production) are assessed as a minor magnitude of impact in the ISEP guidance. The advice in the ISEP guidance [3] that temporary developments can result in a permanent impact relates to impacts on other soil-related features as advised by other environmental specialists and not to soil functions such as food production from agricultural land as the function is lost temporarily for the installation of the pipeline but is returned on reinstatement.
- 2.1.13 NE has commented that, although the land may be used only temporarily, long-term reductions in productivity can occur due to soil loss, soil structural damage, drainage disturbance, mixing topsoil and subsoil, and incorrect soil restoration, and therefore the magnitude of impact could be greater. However, all these potential impacts are mitigated in the Outline SRMP (appended to the Outline CEMP (Document reference 7.1, DCO Volume 7)), and the contractor is required to comply with a detailed SRMP to mitigate these impacts. There is no basis, therefore, on which to assess the magnitude of impact for the Proposed Development as anything greater than the temporary, reversible loss of agricultural land.
- 2.1.14 The PEI Report assessed the permanent land losses as neutral for 1.6ha of BMV land and 1.1ha of non-BMV land, whereas ES Chapter 12 Land use and agriculture, Volume I (Document reference 6.1, DCO Volume 6) based on the ISEP approach reports a likely significant effect for the permanent loss of the very high sensitivity Grade 2 BMV land and non-significant adverse effects for the high sensitivity BMV Land and the non-BMV land.

References

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