

# A47 Wansford to Sutton Dualling

**Scheme Number: TR010039**

## **Volume 9**

### **9.10 Likely Significant Residual Effects Summary Table**

The Infrastructure Planning (Examination Procedure) Rules 2010  
Rule 8(1)(c)

Planning Act 2008

February 2022

Deadline 2

Infrastructure Planning

Planning Act 2008

**The Infrastructure Planning  
(Examination Procedure) Rules 2010**

**A47 Wansford to Sutton  
Development Consent Order 202[x]**

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**9.10 Likely Significant Residual Effects Summary Table**

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<b>Rule Number:</b>	Rule 8(1)(c)
<b>Planning Inspectorate Scheme Reference</b>	TR010039
<b>Application Document Reference</b>	TR010039/EXAM/9.10
<b>BIM Document Reference</b>	PCF Stage 4
<b>Author:</b>	A47 Wansford to Sutton Project Team, National Highways

<b>Version</b>	<b>Date</b>	<b>Status of Version</b>
Rev 0	February 2022	Deadline 2

## Summary of predicted residual effects

To provide a summary of the likely significant residual effects, and beneficial effects, identified within each ES Chapter, the predicted residual effect tables have been pulled together and are detailed below for the following ES Chapters:

- ES Chapter 6: Cultural Heritage (**APP-044**)
- ES Chapter 7: Landscape and Visual Effects (**APP-045**)
- ES Chapter 8: Biodiversity (**APP-046**)
- ES Chapter 9: Geology and Soils (**APP-047**)
- ES Chapter 10: Materials Assets and Waste (**APP-048**)
- ES Chapter 11: Noise and Vibration (**APP-049**)
- ES Chapter 12: Population and Human Health (**APP-050**)
- ES Chapter 13: Road Drainage and Water Environment (**APP-051**)
- ES Chapter 15: Cumulative Effects Assessment (**APP-053**)

## ES Chapter 6: Cultural Heritage (APP-044)

Table 6-1: Beneficial and significant adverse construction and operational effects

NHLE / HER / BLO Ref Name	Designation	Value / Sensitivity	Description of impact and mitigation proposals	Magnitude of Impact before mitigation	Magnitude of impact after mitigation	Significance of Effect
<p>WAN1</p> <p>Former Wansford Road Railway Station</p>	Locally Listed	Medium	<p>The station building is to be demolished.</p> <p>A suitable level of historic building recording will preserve the asset by record. The record will conform to Historic England standards for a level 3 record and will include written, drawn and photographic records of the station building, platform, linesmans hut and gate piers. A topographic survey will be included to record the railway earthworks. The immediate context will also be recorded, including Heath House.</p> <p>Efforts will be made to retain as much of the platform as possible and the linesman's hut through sensitive design during PCF stage 5. Demolition of all or part of these features will require a written justification, provided to Peterborough City Council for discussion.</p> <p>Original building materials from demolition will be made available to reputable organisations for the purposes of historic building restoration and reclamation. Preference shall be given to local railway organisations or projects.</p>	Major adverse	Moderate adverse	Moderate adverse
<p>WAN2</p> <p>Wansford to Sutton Railway Bridge No.6</p>	Locally Listed	Medium	<p>The asset will suffer impacts to setting from the demolition of the Former Wansford Road Railway Station,</p> <p>The asset will receive positive impacts to setting from vegetation clearance and re-purposing of the historic railway line to a footway.</p> <p>The asset will be recorded as part of the mitigation measures for WAN1 above. Results of recording will be used to inform any further conservation works that may be required. Results of all surveys and conservation reports will be incorporated into the Cultural Heritage Asset Management Plan for the network at large.</p>	Moderate adverse	Minor beneficial	Slight beneficial

## ES Chapter 7: Landscape and Visual Effects (APP-045)

Table 7-1: Significant construction effects on landscape character areas (summary)

LCA reference	Magnitude of change	Significance of effect
<b>Nassaburgh Limestone Plateau</b> (Medium sensitivity)	Moderate adverse	Moderate adverse (significant)
<b>Nene Valley</b> (Medium sensitivity)	Major adverse	Large adverse (significant)

Table 7-2: Significant construction effects on representative viewpoints (summary)

Viewpoint reference	Magnitude of change	Significance of effect
1. Sutton High sensitivity	Moderate adverse	Large adverse
2. Footpath West of Stibbington High sensitivity	Moderate adverse	Moderate adverse
3. Riverside open space (former picnic site on Nene Way) High sensitivity	Major adverse	Large adverse
4. Sacrewell Farm High sensitivity	Minor adverse	Moderate adverse
A. Sutton Crossways Track High sensitivity	Moderate adverse	Moderate adverse
B. Lower Lodge Farm High sensitivity	Moderate adverse	Moderate adverse
D. Footpath west of Sutton (Nene Way) High sensitivity	Moderate adverse	Moderate adverse
E. Riverside footpath (Nene Way) High sensitivity	Major adverse	Large adverse
F. Footpath west of Sutton Heath Road	Moderate adverse	Moderate adverse

Viewpoint reference	Magnitude of change	Significance of effect
High sensitivity		
G. Footpath at Windgate Way High sensitivity	Major adverse	Large adverse
I. Black Swan Hill Medium sensitivity	Moderate adverse	Moderate adverse

Table 7-3: Significant construction effects on visual receptors (summary)

Visual receptor type	Significance – number of visual receptors affected		
	Very large adverse	Large adverse	Moderate adverse
Residential	0	1	6
Community	0	1	0
Commercial	0	0	0
PRoW	0	3	3
Roads	0	0	0

Table 7-4: Significant operation effects on landscape character areas (summary)

LCA reference	Year 1 (winter)		Year 15 (summer)	
	Magnitude of change	Significance of effect	Magnitude of change	Significance of effect
<b>Nassaburgh Limestone Plateau</b> (medium sensitivity)	Moderate adverse	<b>Moderate adverse</b>	Minor adverse	Slight adverse
<b>Nene Valley</b> (medium sensitivity)	Moderate adverse	<b>Moderate adverse</b>	Minor adverse	Slight adverse

Table 7-5: Beneficial and significant operation effects on representative viewpoints (summary)

LCA reference	Year one (winter)		Year 15 (summer)	
	Magnitude of change	Significance of effect	Magnitude of change	Significance of effect
1. Sutton High sensitivity	Minor adverse	Moderate adverse	Minor beneficial	Slight beneficial
2. Footpath West of Stibbington High sensitivity	Minor adverse	Moderate adverse	Negligible	Neutral
3. Riverside open space (former picnic site on Nene Way) High sensitivity	Minor adverse	Slight adverse	Minor beneficial	Slight beneficial
A. Sutton Crossways Track High sensitivity	Negligible adverse	Slight adverse	Minor beneficial	Slight beneficial
B. Lower Lodge Farm High sensitivity	Negligible beneficial	Slight beneficial	Negligible beneficial	Slight beneficial
E. Riverside footpath (Nene Way) High sensitivity	Moderate adverse	Moderate adverse	Minor adverse	Slight adverse
G. Footpath at Windgate Way High sensitivity	Moderate adverse	Moderate adverse	Minor adverse	Slight adverse

Table 7-6: Beneficial and significant year 1 construction effects on visual receptors (summary)

Visual receptor type	Significance – number of visual receptors affected			
	Very large adverse	Large adverse	Moderate adverse	Moderate beneficial
Residential	0	0	1	1
Community	0	0	1	0
Commercial	0	0	0	0
PRoW	0	0	4	0

Visual receptor type	Significance – number of visual receptors affected			
	Very large adverse	Large adverse	Moderate adverse	Moderate beneficial
Roads	0	0	0	0

Table 7-7: Beneficial and significant year 15 operation effects on visual receptors (summary)

Visual receptor type	Significance – number of visual receptors affected			
	Very large adverse	Large adverse	Moderate adverse	Moderate beneficial
Residential	0	0	0	1
Community	0	0	0	0
Commercial	0	0	0	0
PRoW	0	0	0	0
Roads	0	0	0	0

## ES Chapter 8: Biodiversity (APP-046)

Table 8-1: Predicted beneficial and significant residual effects on biodiversity resources following implementation of committed mitigation



Ecological receptor and valuation	Importance	Summary of potential impacts	Level of impact pre-mitigation	Impact characterisation <sup>1</sup>	Summary of proposed mitigation/compensation	Residual impact	Significance of residual effect
Sutton Meadows North and Sutton Dismantled Railway CWS	County	<p><b><u>Construction</u></b></p> <p>Direct permanent loss of habitat (land-take) from Sutton Meadows CWS and Sutton Dismantled Railway CWS.</p> <p>Temporary loss of habitat through the creation of a flood storage area and trenching to facilitate the installation of drainage from the attenuation basin into the River Nene</p> <p>Construction of pipeline and headwalls across Sutton Meadows North CWS into River Nene CWS</p>	Major adverse	Permanent (habitat loss) and temporary (pollution and surface water run-off)	<p>All potential pollution pathways would be controlled through the establishing of best practice pollution prevention outlined in the EMP.</p> <p>To compensate the partial loss (approx. 1.2ha) of the Sutton Meadows North CWS, a new area (approx. 2.6ha) of restored species rich grassland/wild-flower meadow would be established and managed through a bespoke habitat management plan.</p> <p>Trees lost within Sutton Meadow North and Sutton Dismantled Railway CWS would be compensated and further enhancement planting would be undertaken and the remaining ground should be protected from construction vehicles.</p> <p>The temporary lost area of meadow habitat on Sutton Meadow North would be mitigated for by the steps set out below.</p> <p>Where the trench is to be dug through the CWS as part of the installation of drainage from the attenuation basin north of A47, the turf and sub soil must be used in the backfilling to maintain the pre-existing seedbank. Turf strips shall be removed first and stored in situ, and spoil would be stored in-situ on a tarpaulin and banded to prevent it washing into nearby watercourses. This would then be used in the backfilling. This process will be detailed in the EMP.</p>	Minor beneficial	Slight beneficial

<sup>1</sup> Temporary and permanent impacts are characterised by using knowledge of the nature of the impact of the works. Table 3.11 of LA 108 (Biodiversity) gives further descriptions used to aid this characterisation.

Ecological receptor and valuation	Importance	Summary of potential impacts	Level of impact pre-mitigation	Impact characterisation <sup>1</sup>	Summary of proposed mitigation/compensation	Residual impact	Significance of residual effect
					<p>Once constructed, the new flood storage area within the CWS (TL 08903 99499) east of wittering brook would be planted back to the pre-existing flood meadow habitat similar to Sutton Meadow South CWS.(NVC MG4 habitat).</p> <p>For the reasons set out above the significance of the residual effect on the CWS has been set out at slight and not moderate.</p>		
NERC Act (2006) S41 priority habitats	National	<p><b>Construction</b></p> <p>Permanent loss of hedgerows, deciduous woodland, lowland calcareous grassland, coastal and floodplain grazing marsh, arable field margins and ponds.</p> <p>Indirect effects on coastal and floodplain grazing marsh lowland fens, lowland meadows, wood-pasture and parkland and rivers from pollution of habitat, air quality, surface water runoff, water level changes, sedimentation and accidental spillages,</p>	<p>Major adverse (hedgerows, lowland deciduous woodland, lowland calcareous grassland, coastal and floodplain grazing marsh, field margins and ponds.</p> <p>Moderate adverse (all other receptors).</p>	Permanent (habitat loss) and temporary (pollution and surface water run-off)	<p>Compensatory species-rich hedgerow and native woodland planting is to be undertaken which matures slowly. The time lag would take years to reach its full former maturity causing residual effects.</p> <p>Compensatory increased areas of species-rich grassland planting is to be undertaken which matures quickly. This remediation would have beneficial residual effects</p> <p>Attenuation ponds for infiltration would be designed as a SuDS feature to reduce run-off and filter the water from contaminants. No residual effects from pollution anticipated.</p> <p>For the reasons set out above, the significance of the residual effect on hedgerows, coastal and floodplain grazing marsh, and deciduous woodland has been set out at moderate and not large and lowland meadows, lowland calcareous grassland, ponds as slight over moderate.</p>	<p>Moderate adverse (hedgerows, deciduous woodland, coastal and floodplain grazing marsh)</p> <p>Minor beneficial (lowland meadows, lowland calcareous grassland, ponds)</p>	<p>Moderate adverse (hedgerows, deciduous woodland, coastal and floodplain grazing marsh)</p> <p>Slight beneficial (lowland meadows, lowland calcareous grassland, ponds)</p>

## ES Chapter 9: Geology and Soils (APP-047)

Table 9-1: Significant residual geology and soils effects.

Receptor and description of impact	Sensitivity and Magnitude	Reasoning	Significance	Mitigation measures
<b>Construction</b>				
<p>Agricultural soils- Grade 2</p> <p><i>Stripping of soil across the Proposed Scheme required for the permanent works (road, structures, drainage network, environmental bunds etc).</i></p> <p><i>Permanent land-take of between 1 – 20 ha.</i></p>	<p>Very high</p> <p>Moderate</p>	<p>Stripping of soil across the Proposed Scheme footprint required for the permanent works (road, structures, drainage network, flood storage etc.).</p> <p>Agricultural land would be removed/permanently sealed beneath new carriage ways which will be constructed as part of the Proposed Scheme.</p> <p>Permanent land-take of approximately 5.3 ha of ALC grade 2.</p>	<p>Very large adverse (due to the loss of over 10 ha of agricultural land)</p>	<p>Inclusion of a Materials Management Plan (MMP) and Soil Management Plan (SMP).</p> <p>Minimising over-excavation of soils.</p> <p>Reuse of soils as much as possible on the Proposed Scheme</p> <p>Reduce the footprint of the Proposed Scheme as far as practicable.</p> <p>Use of best practice measures for soil handling</p> <p>Logistical planning of site layout and access</p> <p>Identifying soils subject to earthworks and construction activities</p>
<p>Agricultural soils- Grade 2</p> <p><i>Stripping of soil across the Proposed Scheme required for the temporary works (construction compounds, haul roads etc.).</i></p>	<p>Very high</p> <p>Minor</p>	<p>Stripping of soils across the Proposed Scheme footprint required for the temporary works (construction compounds, haul roads, etc.)</p> <p>Temporary land-take resulting in the potential for reduction of soil functions due to degradation, compaction and erosion of soil resource during the construction period.</p>	<p>Moderate adverse (due to temporary impacts)</p>	<p>Inclusion of a Materials Management Plan (MMP) and Soil Management Plan (SMP), incorporating guidance provided by the Construction Code of Practice for the Sustainable Use of Soils on Construction Sites.</p> <p>Minimising over-excavation of soils.</p> <p>Reuse of soils as much as possible on the Proposed Scheme</p> <p>Use of best practice measures for soil handling</p>

Receptor and description of impact	Sensitivity and Magnitude	Reasoning	Significance	Mitigation measures
				<p>Protection of the agricultural soils within the temporary land-take</p> <p>Logistical planning of site layout and access</p> <p>Identifying soils subject to earthworks and construction activities</p> <p>Specifying areas of soils to be stripped, stored and replaced to their baseline condition</p>
<p>Agricultural soils-Grade 3a</p> <p><i>Stripping of soil across the Proposed Scheme required for the permanent works (road, structures, drainage network, environmental bunds etc).</i></p> <p><i>Permanent land-take of between 1 – 20 ha.</i></p>	<p>High</p> <p>Moderate</p>	<p>Stripping of soil across the Proposed Scheme footprint required for the permanent works (road, structures, drainage network, flood storage etc.).</p> <p>Agricultural land would be removed/permanently sealed beneath new carriage ways which will be constructed as part of the Proposed Scheme.</p> <p>Permanent land-take of approximately 2.6 ha of ALC subgrade 3a.</p>	<p>Moderate adverse (due to the loss of less than 10 ha of agricultural land)</p>	<p>Inclusion of a Materials Management Plan (MMP) and Soil Management Plan (SMP).</p> <p>Minimising over-excavation of soils.</p> <p>Reuse of soils as much as possible on the Proposed Scheme</p> <p>Reduce the footprint of the Proposed Scheme as far as practicable.</p> <p>Use of best practice measures for soil handling</p> <p>Logistical planning of site layout and access</p> <p>Identifying soils subject to earthworks and construction activities</p>
<p>Agricultural soils-Grade 3b</p> <p><i>Stripping of soil across the Proposed Scheme required for the permanent works (road, structures, drainage network, environmental bunds etc).</i></p> <p><i>Permanent land-take of between 1 – 20 ha.</i></p>	<p>Medium</p> <p>Moderate</p>	<p>Stripping of soil across the Proposed Scheme footprint required for the permanent works (road, structures, drainage network, flood storage etc.).</p> <p>Agricultural land would be removed/permanently sealed beneath new carriage ways which will be constructed as part of the Proposed Scheme.</p>	<p>Moderate adverse</p>	<p>Inclusion of a Materials Management Plan (MMP) and Soil Management Plan (SMP).</p> <p>Minimising over-excavation of soils.</p> <p>Reuse of soils as much as possible on the Proposed Scheme</p> <p>Reduce the footprint of the Proposed Scheme as far as practicable.</p> <p>Use of best practice measures for soil handling</p>

Receptor and description of impact	Sensitivity and Magnitude	Reasoning	Significance	Mitigation measures
		Permanent land-take of approximately 2.2 ha of ALC subgrade 3b.		Logistical planning of site layout and access  Identifying soils subject to earthworks and construction activities

## ES Chapter 11: Noise and Vibration (APP-049)

Table 11-1: Summary of the initial assessment of significant operational noise effects

Initial assessment of operational noise significance	Number of receptors at which the initial assessment of operational noise is significant or not significant			
	Adverse		Beneficial	
	Daytime, dB LA10,18hr	Night-time, dB Lnight,outside	Daytime, dB LA10,18hr	Night-time, dB Lnight,outside
Significant	2	0	0	0

## ES Chapter 12: Population and Human Health (APP-050)

Table 12-1: Beneficial and significant residual effects on private property and housing during construction

Description of impact	Sensitivity	Magnitude of impact	Potential impacts (pre-mitigation)	Residual effect
Demolition of Old Station House	High	Major	Moderate adverse	<b>Moderate adverse</b>
Journey length increase for Lower Lodge Farm in Upton	High	Moderate	Moderate adverse	Moderate adverse

Description of impact	Sensitivity	Magnitude of impact	Potential impacts (pre-mitigation)	Residual effect
Additional access to Mill House on Great North Road due to link road to Sacrewell Farm	High	Minor	Slight adverse	Slight beneficial

Table 12-2: Beneficial and significant residual effects on community land and assets during construction

Description of impact	Sensitivity	Magnitude of impact	Potential impacts (pre-mitigation)	Residual effect
Removal of severance between community and commercial facilities to the north and south of the A47, due to the proposed Sacrewell Link Road	Low	Minor	Slight beneficial	Slight beneficial

Table 12-3: Beneficial and significant residual effects on development land and businesses during construction

Description of impact	Sensitivity	Magnitude of impact	Potential impacts (pre-mitigation)	Residual effect
Journey length decrease to Stamford Heavenly Chocolates, Origin 8 Deli Cafes and Sacrewell Heritage Museum due to the new link road	Medium	Minor	Slight beneficial	Slight beneficial

Table 12-4: Assessment of significant temporary construction impacts on agricultural holdings

Holding name	Sensitivity to change	Total area required during construction (ha)	Construction severance	Magnitude of Impact	Residual effects	Area to be restored to agriculture (ha)
1	Very High	18.70	Moderate	Minor	<b>Moderate adverse</b>	8.91
3	High	5.58	Moderate	Moderate	<b>Moderate adverse</b>	0.53

Holding name	Sensitivity to change	Total area required during construction (ha)	Construction severance	Magnitude of Impact	Residual effects	Area to be restored to agriculture (ha)
5	Very High	2.41	Minor	Minor	<b>Moderate adverse</b>	0.27

Table 12-5: Assessment of significant permanent construction impacts on agricultural holdings

Holding Name	Sensitivity to Change	Land removed from holding (ha) (and % of total size)	Permanent Severance	Magnitude of Impact	Residual Effect
5	Very High	2.14 (14)	Negligible	Minor	<b>Moderate adverse</b>

Table 12-2: Beneficial and significant residual effects on WCH during construction

Description of impact	Sensitivity	Magnitude of impact (pre-mitigation)	Magnitude of impact (post-mitigation)	Residual effect
Permanent removal of the cycle facilities at A47/A1 roundabouts	Medium	Major adverse	Moderate adverse	<b>Moderate adverse</b>
Diversion of Wansford Hereward Way Permissive 3 and Wansford Hereward Way Permissive 2 along the new access road for Sacrewell Farm (for users approaching from Wansford)	High	Negligible beneficial	Minor beneficial	<b>Moderate beneficial</b>
New link between A47/A1 eastern roundabout and petrol filling station	High	No change	Negligible beneficial	Slight beneficial
Removal of A47/Upton Road / Peterborough Road roundabout (cycle movements between Ailsworth and Upton)	High	Major adverse	Moderate adverse	<b>Moderate adverse</b>
Removal of A47/Upton Road / Peterborough Road roundabout (cycle movements between Southorpe and Ailsworth via Upton)	High	Major beneficial	Major beneficial	<b>Large beneficial</b>

Description of impact	Sensitivity	Magnitude of impact (pre-mitigation)	Magnitude of impact (post-mitigation)	Residual effect
Permanent stopping up of Wansford 4 and replacement with new section of footpath	Medium,	No change	Negligible beneficial	Slight beneficial

Table 12-3: Beneficial and significant residual operation effects on WCH during operation

Description of impact	Sensitivity	Magnitude of impact	Residual effects
New combined footway/cycleway along the realigned and improved section of the A47 between petrol filling station and the proposed underpass at the disused railway line.	n/a	n/a	Slight beneficial
New combined footway/cycleway along the section of the A47 to be closed to traffic between the underpass at the disused railway line and the new link road to Peterborough Road.	n/a	n/a	Slight beneficial
New combined footway/cycleway on the new link road from the proposed A47 roundabout to Peterborough Road	n/a	n/a	Slight beneficial
New underpass at the disused railway line that is suitable for pedestrians and cyclists.	n/a	n/a	Slight beneficial

Table 12-4: Beneficial and significant residual operation effects on human health during operation

Health Determinant	Predicted impacts on determinants	Residual effect of health outcome
Access to healthcare facilities		Positive



Health Determinant	Predicted impacts on determinants	Residual effect of health outcome
Access to community, recreation and education facilities	<p>Healthcare facilities, community, recreation and education facilities are located primarily in Wansford. When accessing from the south, drivers would access via Peterborough Road off the A1, which would be stopped up as part of the Proposed Scheme. However, adequate accessibility provision exists via an earlier turning or using the A47/ A1 roundabout. New WCH provision would be provided to enable active travel to community assets in Wansford and a new cycling route would be provided connecting the east and west sides of the A1.</p> <p>The new WCH routes are predicted to result in a positive impact on population and human health and enable additional provision for active travel. The footway and cycleway would also provide access to areas of open space and community assets, and are likely to encourage more people to access the area on foot or by bicycle, which has the potential to result in increased physical activity of the local population, and other users from other communities. The improved A47 and provision of a WCH route would help to reduce transport barriers to health (such as accessing appointments) by enabling more options for travel.</p> <p>Therefore, the health outcome of construction of the Proposed Scheme on access to healthcare, community, recreation and educational facilities as a determinant of human health is assessed to be positive.</p>	Positive
Access to green and open space	<p>Due to the proposed Sacrewell Link Road, there would be increased connectivity between the north and south of the existing A47 with the Wansford Picnic area. Therefore the Proposed Scheme would result in improved access and therefore a positive health outcome for access to green/open space for local residents.</p>	Positive

## ES Chapter 15: Cumulative Effects Assessment (APP-053)

In summary, as a single project, it has been identified that there may be a Moderate adverse significant effect on Old Station House during construction due to effects on Cultural heritage and Population and human health as a result of the Proposed Scheme. The cumulative effect on Old Station House is assessed as Moderate adverse. The Proposed Scheme is unlikely to result in any other significant cumulative effects during construction or operation.