

TAG Landscape Impacts Worksheet

	Step 2	Step 3				Step 4	
Features	Description	Scale it matters	Rarity	Importance	Substitutability	Impact	Mitigation
Pattern	<p>The study area pattern is an undulating, clay-dominated, low-lying rural landscape that is centred on the River Avon with relatively little woodland cover. The area has a regular pattern of small and medium-sized fields with mostly hedgerow boundaries with hedgerow trees all of a predominantly deciduous nature. Field shape varies from irregular piecemeal enclosure to rectilinear planned enclosure. There are some gaps in the vegetation which provide open, long-range views over the rural landscape.</p> <p>The landscape adjacent to the Scheme is predominantly vegetated by field boundary hedgerows with trees and linear belts of shrubs and trees, these are of a deciduous nature.</p> <p>The River Avon flows through the landscape approximately 4km to the west of the study area and runs north-east/south-west. The river Avon is lined either side with scattered trees of a riparian and deciduous nature.</p> <p>A coherent pattern of landscape elements with some detracting features including power lines, farm and commercial buildings, roads and road junctions.</p>	Regional and local	Regionally and locally common	Medium regional and local importance	Some opportunity for substitution in the medium term. Replacement planting should provide current level of cover in 15 years.	<p>The construction of the Scheme coupled with any required vegetation removal and the elevated nature of parts of the road corridor will make the Scheme more visible in the landscape pattern. However, over time any adverse effects on the pattern will be minimised through mitigation and enhancement measures.</p> <p>Based on the anticipated amount, location, quality and substitutability of the vegetation lost, this would result in a Moderate Adverse impact initially and reducing over time to a Slight Adverse impact post year 15 with the mitigation and enhancement measures in place.</p>	There would be benefits in strengthening the screening of the highway planting by carrying out some off site planting, particularly if planting with a higher ratio of evergreen species. These would act as visual screen in the landscape framework.

Tranquillity	<p>In general the tranquillity directly adjacent to the Scheme is high as it is within a rural setting, cutting through agricultural fields. The surrounding landscape and nearby communities enjoy high levels of tranquillity which is helped by the established, mature vegetation including hedgerows with trees and linear belts of shrubs and trees to both the highway and field boundaries.</p> <p>Approximately 1km west of the Scheme, the market town of Melksham resides. Residential and business properties, road networks and leisure facilities are dominant features of the urban character reducing the level of tranquillity in this area. Similarly, approximately 300m south of Melksham, Bower hill also experiences relatively reduced tranquillity due to its mix of residential and business properties as well as the road networks and leisure facilities therein.</p> <p>There are several small nucleated settlements and farmsteads surrounding the Scheme, these currently enjoy a relatively higher level of tranquillity compared to the larger towns.</p> <p>Due to this, much of the tranquillity around the study area has been retained, particularly to the north, east and south quadrants where there is a higher proportion of attractive rural elements.</p>	Local	Typical for the area	High local importance	Not substitutable	<p>During the construction stage, the elevated sections of road as well as new sections of road corridor associated with the Scheme will be visible within the landscape. This would result in a reduction in tranquillity in the areas directly adjacent. The tranquillity of these areas will be temporarily altered by the works and early operation of the Scheme. The negative impacts would be minimised through adequate mitigation and enhancement measures.</p> <p>This proposal would directly affect the route corridor and the adjacent land and would lead to a loss of tranquillity. Vegetation will be removed to allow for construction works reducing tranquillity. This would result in a Moderate Adverse impact initially. This would reduce to a slight adverse impact post year 15 with the mitigation and enhancement measures in place.</p>	<p>During the construction phase scheme design should also take into consideration noise and movement of vehicles in so far as it may affect the perception of tranquillity in the landscape, access arrangements and traffic movements and therefore looking at methods of potentially phasing the development over the operational stage should be undertaken.</p>
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Cultural	<p>There are a number of historical features such as Listed Buildings and a few Scheduled Monuments within the wider landscape. This includes Lacock and Bowden hill Conservation Areas to the north and north-east respectively, all of which contribute to the landscape character.</p> <p>Also within the wider landscape are nucleated villages with many retaining their traditional character. There is modern suburban housing within the larger towns and villages.</p> <p>Spye Park is a grade II registered park and garden as well as being a Site of Special Scientific Interest (SSSI). It is approximately 1.3 km east of the Scheme.</p> <p>The surrounding countryside has an extensive network of Public Rights of Way (PRoW) within fields, along hedged boundaries, streams and across open fields. National Cycle Routes 4 and 403 pass through the Scheme along the Kennet and Avon canal and forest lane respectively.</p> <p>Notable views include those within areas that exhibit distinctive visual amenity and receptors with high visual sensitivity. These include residential properties and recreational users (including users of recreational facilities, walkers and cyclists) within and around Lacock and Bowden hill Conservation Areas, Melksham Town Council area and within, or with views</p>	Heritage features matter at a regional and national scale	Regionally common	Regionally and locally common	Not substitutable	<p>Historical features that contribute to the landscape character and visual amenity including Listed Buildings, Scheduled Monuments, and Lacock and Bowden hill Conservation Areas would potentially be affected.</p> <p>The works will potentially result in an adverse effect on the visual amenity upon many receptors. This includes properties within the nucleated villages, farmsteads and listed buildings surrounding the Scheme. Users of the extensive PRoW network surrounding the Scheme would experience an adverse effect on visual amenity.</p> <p>However, through considered design and landscaping along the Scheme, the road corridor could be increasingly contained, minimising impact on the surrounding cultural features and visual amenity. This would result in a Moderate Adverse impact initially and reducing over time to a Slight Adverse impact post year 15 with the mitigation and enhancement measures in place.</p>	PRoW - Ensure advanced notification of construction work for PRoW users. It is also recommended that reinstatement of the original route is undertaken if affected.
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Landcover	<p>The landcover adjacent to the Scheme is predominantly vegetated by field boundary hedgerows with hedgerow trees and linear belts of deciduous shrubs and trees.</p> <p>The landcover just beyond the Scheme is characterised by agricultural fields with field boundary hedgerows. The trees are deciduous with some small-scale broad-leaved ancient woodlands scattered throughout the landscape.</p> <p>The landscape is intensely farmed with a higher percentage of pasture to arable. The area's generally fertile soils and good quality agricultural land have supported a diversity of farming over a long period but, because of this, little semi-natural habitat remains. The River Avon and its flood plain is a distinctive feature running through the landscape. This is a major corridor for wildlife moving through the area and a wide variety of wetland habitats.</p>	Regional and Local	Regionally and locally common	Medium regional and local importance	Arable land cover is substitutable in the short to medium term.	<p>Due to the construction of the Scheme and dualling of the southern section of the A350 near Semington, a large amount of vegetation is expected to be lost.</p> <p>However, through mitigation and enhancement measures the adverse effects would potentially be minimised reducing the overall impact on the surrounding landcover in the long-term.</p> <p>Based on the assumption that a certain amount of vegetation shall be lost and considering the location, quality, and substitutability of said vegetation it is reasoned that this will potentially result in a Large Adverse effect.</p> <p>The potential significance of effect is therefore deemed to be Large Adverse initially and reducing over time to a Moderate Adverse impact post year 15 with the mitigation and enhancement measures in place.</p>	<p>Any adverse effects can potentially be mitigated through such measures as:</p> <ul style="list-style-type: none"> - Vegetation removal should be kept to that necessary for the works and, where possible, avoid mature species; - Vegetation removed should be replaced on a like for like basis where possible, suitable alternatives should be proposed in the case that the species cannot be matched; - Where possible bunding with vegetative screening including evergreen species that fit with the local vernacular to aid screening to be established; - Enhancement of the environment along the Scheme to improve the experience for residents, pedestrians, cyclists, and vehicle users; - Retain and make best use of existing vegetation; - Prioritise the early re-establishment of vegetation within the highway boundary; - Use native species of local provenance wherever possible; - Plant species to benefit local conservation works;
Summary of character	<p>The area is low lying with an undulating topography having a regular pattern, allowing open long-range views in many areas.</p> <p>Within the study area there is a noticeable air of tranquillity around the study area. Melksham and Bower hill having a lower level of tranquillity due to its mix of residential and business nature. The River Avon and wider countryside allows for a more tranquil setting.</p> <p>There are many listed buildings and a few Scheduled Monuments within the wider landscape, including Lacock and Bowden hill Conservation Areas. Spye Park is a notable SSSI. There are several ancient woodlands surrounding the Scheme.</p> <p>The surrounding countryside has an extensive Public Rights of Way network including National Cycle Routes 4 and 403 running through the study area and alongside the local river network.</p> <p>The landscape is heavily farmed with the landcover being predominantly pasture. The River Avon and its flood plain is a distinctive feature running through the landscape.</p>	Regional and local	Regionally and locally common	Medium	Some opportunity for substitution	<p>The construction of the Scheme and dualling of existing carriageway has the potential to result in direct effects however, there are opportunities to mitigate and enhance the scheme design to avoid, minimise and offset these effects.</p> <p>There is some uncertainty given that the environmental design and mitigation strategy is still to be developed. Due to the existing nature of the Scheme area being agricultural land any works will have a Large Adverse effect and reducing to Moderate Adverse post year 15 as long as mitigation and enhancement measures have been established.</p>	

Reference Sources

DfT TAG Unit A3, May 2019 (https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/825064/tag-unit-a3-environmental-impact-appraisal.pdf)
Mapping data from Natural England including National Character Area 117 Avon Vales, Country Parks, Local Nature Reserves, Common Land, Ancient and Semi-Natural Woodland, Sites of Specific Scientific Interest, Traditional Orchards and Special Areas of Conservation;
Mapping data from Historic England including Listed Buildings, Registered Parks and Gardens, World Heritage Sites and Battlefields;
Google Earth;
Google Street View;
Open Source Data including MAGIC; and
Atkins Geospatial Information.

Step 5 - Summary Assessment Score

Large Adverse

Qualitative Comments

A 2.5km offset from the centre line of the Scheme has been used for the study area within this local character area. It is considered that adverse effects are unlikely beyond this.

The overall assessment score for the option has been determined with reference to sections 5.3.15 – 5.3.20 and 6.2 of TAG UNIT A3, Environmental Impact Appraisal, May 2019, Department for Transport, Transport Analysis Guidance as summarised below:

- Cumulative adverse effects. Where it is clear that there is a cumulative effect across a range of key environmental resources, then the scheme as a whole should be scored in a higher category than the key environmental resources in isolation. For example, a scheme may affect a number of key environmental resources, each of which is assessed 'slight adverse'. Where it is clear that there is a cumulative effect across the key environmental resources, the scheme as a whole would be assessed as 'moderate adverse'.

The Scheme shall result in an overall Large Adverse effect, particularly at construction and early years of operation. It is in contrast to the existing landscape conditions, that being a highway within agricultural land, the intrusive nature of the Scheme will have a large adverse effect on both the landscape and visual amenity experienced. This adverse effect cannot be completely mitigated and any planting will serve to minimise the adverse effect but not eradicate it. As a result, the Scheme can not be fully integrated and will change the face of the landscape permanently.

It is noted that a precautionary principle has also been applied due to uncertainty with regards the environmental design and mitigation strategy.