

APPENDIX 5: LANDSCAPE AND VISUAL ASSESSMENT METHODOLOGY

The landscape and visual assessment has been carried out in accordance with the following guidelines and guidance documents:

- Guidelines for Landscape and Visual Impact Assessment (GLVIA), published by the Landscape Institute and the Institute of Environmental Management and Assessment (2002).
- Landscape Character Assessment (LCA) - Guidance for England and Scotland, published by the Countryside Agency and Scottish Natural Heritage (2002).

Reference has also been made to the following:

- Scottish Natural Heritage Landscape Policy Framework, PS 05/01 (2005).
- Making Sense of Place - Landscape Character Assessment, The Countryside Agency & Scottish Natural Heritage (2002).
- National Heritage Zones: A National Assessment of Scotland's Landscapes.
- Scottish Natural Heritage Handbook on Environmental Impact Assessment, Tyldesley, D and Associates (2009) – Appendix 1, Landscape and Visual Impact Assessment.
- Cost Effective Landscape: Learning from Nature, Scottish Executive (1998).
- Planning Advice Note (PAN) 58; Environmental Impact Assessment, Scottish Government (1999).
- Tayside Landscape Character Assessment. Land Use Consultants for Scottish Natural Heritage (1999).

The guidance relies on an appreciation of the existing landscape, a thorough understanding of the development proposals, the magnitude of change, the sensitivity to change and the potential to mitigate impacts. It also considers the cumulative impacts on character, where appropriate, in the context of the receiving landscape.

Stages in the assessment process

There are 5 key stages to the assessment of landscape character and visual context:

- Recording and analysis of the existing landscape and visual context of the receiving environment (collection of baseline data).
- An appreciation of the nature, forms and features of the proposed development. Experience of the landscape involves all five senses.

- An appreciation of the positive visual receptors in the vicinity of the development.
- An assessment of the nature and magnitude of change likely to result from the development, and the sensitivity of the existing landscape to the change. The value placed on an area is dependent not only on its inherent scenic quality but on its situation, rarity and usage. Historical and cultural associations may contribute to the value placed on landscape not generally considered to be of visual or other importance.
- Evaluation of the significance of the changes identified based on the above assessment, taking into account any mitigation strategies.

Assessment tasks

The following tasks have been undertaken as part of the assessment:

- Desk based analysis of existing and proposed land use data and planning related policies from the current Development Plan.
- A review of current national level planning policy guidance.
- Site appraisal of the baseline landscape. Data collection was by way of desk study and site survey on foot. Site recording involved annotation of Ordnance Survey plans at various scales, supported by a review of aerial photography and a thorough photographic record of the area.
- Drafting and description of character zones including analysis of their sensitivity and magnitude to change.
- Analysis of change in character and potential resultant effect on quality and value related to impact on specific landscape elements, and the potential composite change in identity engendered by the development proposals.
- Identification of key views and visual receptors.
- Analysis of change in landscape and visual effects as landscape mitigation measures, most typically planting, establishes and matures.
- Evaluation of the effects of the proposed change on individual character zones and a summary statement of the impacts and effects of the proposal on the composite character of the area and to visual receptors.

Assessment of Landscape Impacts

In order to assess the significance of landscape impacts consideration was given to the sensitivity of the landscape and the likely magnitude of effects caused by the proposed flood protection measures as outlined below.

Character assessment

Landscape character assessment is based on identification of the sensitivity of the landscape within the proposed study area, and the magnitude of change within the landscape that would result from the construction and operation of the proposals.

The wider landscape of the area is broken down into distinctive local character zones, outlined in Scottish Natural Heritage & the Countryside Agency's Landscape Character Assessment, 'Making Sense of Place' Summary Guidance for England and Scotland. Assessment is undertaken in relation to each specific character zone, and the significance of impact for each is identified.

The process involves analysis of landscape quality within and between zones and an analysis of landscape value, leading to recognition of the sensitivity of the character zone to any changes likely to result from the construction of the proposals. The specific proposals are then considered in terms of the magnitude of change that would result within particular character zones.

Character, quality and value

Landscape character is a composite of physical and cultural elements. Landform, hydrology, vegetation and land-cover, built form, land use patterns, cultural and historic features and associations combine to create a common 'sense of place' and identity which can be used to categorise the landscape into clearly definable units (character zones). The level of detail and size of character zone can be varied to reflect the scale of definition required. It can be applied at national through to local level.

Landscape quality relates to the intrinsic aesthetic appeal demonstrated by a given character zone or specific features and/or composition within the landscape. Value is frequently addressed by reference to international, national, regional and local policy designations determined by statutory and planning agencies. Absence of such a designation, however, does not imply that the landscape lacks quality or value. Factors such as accessibility and local scarcity can render landscape areas of nationally unremarkable quality highly valuable as a resource at the local level.

A five point descriptive scale with definitions has been adopted to describe landscape value related to the various character zones identified within the assessment. This is set out in Table 1 below.

Table 1: Landscape Quality

Category	Criteria
Highest quality landscape	Areas comprising a strong, clear composition of valued landscape components in robust form and health, free of disruptive visual detractors and with a strong sense of place.
Very attractive landscape	Areas primarily of valued landscape components combined in an aesthetically pleasing composition, expressing sense of place and lacking prominent disruptive visual detractors.
Good landscape	Areas primarily of valued landscape components combined in an aesthetically pleasing composition with low levels of disruptive visual detractors.
Ordinary landscape	Areas containing some features of landscape value or a distinguishable landscape structure, but lacking a coherent and aesthetically pleasing composition.
Poor landscape	Areas lacking valued landscape components or comprising degraded features or exhibiting evidence of mixed land use and detracting features, and lacking any aesthetically pleasing composition.

Magnitude of change

Magnitude of change considers the extent to which the proposed development would emerge as a new component in the landscape and would change the balance between components that currently constitute its character.

The magnitude of change might be high where significant areas of tree planting are lost to construction or where the scale of the development and its structures is in contrast to a fundamentally intimate land use pattern. Conversely, low magnitude might be represented by proposals that require minimal loss of important landscape features or where the landform and planting pattern is able to accommodate the proposed development with a good degree of integration. For this assessment, magnitude of change is ranked as shown in Table 2 below.

Table 2: Magnitude of Change

Category	Criteria
High magnitude	Where the development would appear as a significant new component in the landscape and result in a significant change in the existing balance of components, or cause a total loss or major alteration to the elements comprising the baseline conditions.
Medium magnitude	Where the development would appear as a distinctly noticeable new component in the landscape and result in a readily perceived change in the existing balance of components, or cause a partial loss or alteration to the elements comprising the baseline conditions.
Low magnitude	Where the development would appear as a noticeable new component in the landscape and result in a discernible change in the existing balance of components, or cause a minor loss or alteration to the elements comprising the baseline conditions.
Negligible/No change	Where the development would appear as a new component in the landscape, resulting in a barely perceptible change in the existing balance of components, or where the development would not appear uncharacteristic to the existing baseline conditions.

Sensitivity to change

Sensitivity to change considers the structure, quality and value of the existing landscape and the extent to which it is considered as being capable of accepting the type of development proposed. Sensitivity is represented on a scale as being high, medium or low. In this assessment, sensitivity to change is ranked as shown in Table 3.

Table 3: Sensitivity to Change

Category	Criteria
High sensitivity	Landscape or landscape elements of particularly distinctive character, highly valued and considered susceptible to relatively small changes.
Medium sensitivity	A landscape of moderately valued characteristics considered reasonably tolerant of moderate levels of change.
Low sensitivity	A landscape of generally low valued characteristics considered tolerant of substantial levels of change.

Change over time

Landscape impacts change over time as the existing landscape external to a proposed development evolves. The assessment acknowledges change over time and reports on predicted impacts on the basis that mitigation proposals and existing

landscape components such as planting within the area will establish and mature with time.

Impact criteria

The prime criteria used to evaluate impact on landscape character are centred on the extent to which existing landscape elements, features and key characteristics would be lost or modified in conjunction with their significance in determining quality and value.

Other criteria used to ascertain landscape character impact include the size, elevation and proportion of the development in respect of the receiving environment and the degree to which activity within the receiving environment would alter, both during and post construction. Cumulative landscape impacts on the baseline environment are also taken account of in respect of the proposals.

Impacts can be detrimental where features or key characteristics such as established planting, old buildings or structures have to be removed. Alternatively, impacts can prove beneficial where derelict buildings or poorly maintained landscape features are restored, replaced or maintained, or where there is the introduction of new tree planting and a landscape structure where none currently exists, constituting an improvement in the current landscape pattern.

Impact application and evaluation

Each of the character zones has been evaluated against the key landscape character impact criteria and has been allocated an impact rating. The evaluation and impact assessment for each character zone concludes with a summary statement of the effect of the proposed development on the character of the area as viewed from that particular zone, taking into account landscape mitigation measures and reflecting the significance of change over time.

The assessment is focused on the current development proposals and measures the nature and magnitude of change in comparison to the existing baseline context of the area. The prime concerns are the extent to which the proposal and associated facilities would intrude into the existing receiving environment.

Reference is also made to existing works and approved advanced works, where applicable, that would influence the context in which the proposed development would take place.

Impact ratings

The significance of the predicted impacts has been assessed by considering the sensitivity to change and magnitude of change for each of the character zones, as shown in Table 4 below.

Table 4: Determinants of Significance

Magnitude	High	Moderate	Large / Moderate	Large
	Medium	Slight / Moderate	Moderate	Large / Moderate
	Low	Slight / Neutral	Slight / Moderate	Moderate
	Negligible	Neutral	Slight	Slight
		Low	Medium	High
		Sensitivity		

The findings are represented using a descriptive scale ranging from large, moderate and slight beneficial impact, through neutral down to slight, moderate and large adverse impact.

There is a further impact rating, 'Very large adverse', used to indicate impact on a very high quality landscape or on important and rare combinations of landscape features and their elements. Such a rating would indicate that the impact is considered highly prejudicial in relation to the specific topic of landscape character. An explanation of the impact ratings is provided in Table 5.

Table 5: Landscape Impact Assessment – Significance Ratings

Rating	Effects / Definition
Large beneficial impact	The proposals constitute a major restructuring of a degraded landscape.
Moderate beneficial impact	<p>The proposals provide an opportunity to enhance the landscape because they fit very well with the scale, landform and pattern of the landscape.</p> <ul style="list-style-type: none"> • There is also potential, through mitigation, to enable the restoration of characteristic features, partially lost or diminished as the result of changes resulting from intensive farming or inappropriate development. • They will enable a sense of place and scale to be restored through well-designed planting and mitigation measures, that is, characteristic features are enhanced through the use of local materials and species used to fit the proposal into the landscape. • They enable some sense of quality to be restored or enhanced through beneficial landscaping and sensitive road design in a landscape which is not of any formally recognised quality. • They further government objectives to regenerate degraded countryside.

Rating	Effects / Definition
Slight beneficial impact	<p>The proposals fit well with the scale, landform and pattern of the landscape.</p> <ul style="list-style-type: none"> • They incorporate measures for mitigation to ensure they will blend in well with surrounding landscape. • They will enable some sense of place and scale to be restored through well-designed planting and mitigation measures. • They maintain or enhance existing landscape character in an area which is not a designated landscape, nor vulnerable to change. • They avoid conflict with government policy towards protection of the countryside.
Neutral impact	<p>The proposals are well designed to complement the scale, landform and pattern of the landscape.</p> <ul style="list-style-type: none"> • They incorporate measures for mitigation to ensure that the scheme will blend in well with surrounding landscape features and landscape elements. • They avoid neither being visually intrusive nor have an adverse effect on the current level of tranquillity of the landscape through which the route passes. • They maintain existing landscape character in an area which is not a designated landscape, that is, neither national nor local high quality, nor is it vulnerable to change. • They avoid conflict with government policy towards protection of the countryside.
Slight adverse impact	<p>The proposals do not quite fit the landform and scale of the landscape.</p> <ul style="list-style-type: none"> • Although not very visually intrusive, they will impact on certain views into and across the area. • They cannot be completely mitigated for because of the nature of the proposal itself or the character of the landscape through which it passes. • They may affect an area of recognised landscape quality. • The conflict with local authority policies for protecting the local character of the countryside.
Moderate adverse impact	<p>The proposals are out of scale with the landscape, or at odds with the local pattern and landform.</p> <ul style="list-style-type: none"> • They are not possible to fully mitigate for, that is, mitigation will not prevent the scheme from scarring the landscape in the longer term as some features of interest will be partly destroyed or their setting reduced or removed. • They will have an adverse impact on a landscape of recognised quality or on vulnerable and important characteristic features or elements. • They are in conflict with local and national policies to protect open land and nationally recognised countryside and historic environment as set out in Scottish Planning

Rating	Effects / Definition
	Policy (SPP).
Large adverse impact	<p>The proposals are at considerable variance with the landform, scale and pattern of the landscape.</p> <ul style="list-style-type: none"> • They are visually intrusive and would disrupt fine and valued views of the area. • They are likely to degrade, diminish or even destroy the integrity of a range of characteristic features and elements of their setting. • They would be substantially damaging to a high quality or highly vulnerable landscape, resulting in fundamental change and be considerably diminished in quality. • They cannot be adequately mitigated for.
Very large adverse impact	<p>The proposals are at complete variance with the landform, scale and pattern of the landscape.</p> <ul style="list-style-type: none"> • They are highly visual and extremely intrusive, destroying fine and valued views both into and across the area. • They would irrevocably damage or degrade, badly diminish or even destroy the integrity of characteristic features and elements and their setting. • They would cause a very high quality or highly vulnerable landscape to be irrevocably changed and its quality very considerably diminished. • They could not be mitigated for, that is, there are no measures that would protect or replace the loss of a nationally important landscape. • They cannot be reconciled with government policy for the protection of nationally recognised countryside and historic environment as set out in Scottish Planning Policy (SPP).

Professional judgement and experience were used to confirm the assessment of significance taking into account that the criteria represent levels on a continuum or continuous gradation depending on the relative importance of magnitude and sensitivity.

Visual Effects

This presents the predicted impacts of the proposed flood protection scheme on the views and visual amenity within the study area. Visual amenity is defined as the pleasantness of the view or outlook of an identified receptor or group of receptors.

The assessment determines the degree of change to the views and visual amenity that will occur as a result of the proposed operations to and from buildings, areas of public open space, roads and footpaths. The buildings, open spaces, roads and footpaths that would have views of the operations are collectively referred to as 'receptors'. The potential to mitigate adverse impacts has been taken into account in the assessment and the residual impacts identified.

A Visual Envelope Map (VEM) was prepared. The VEM is primarily a working tool to determine the area of land from which a view of any part of the proposed scheme can be gained. In some areas the change from the existing situation will be barely perceptible and any adverse visual influence slight or negligible. In other areas the visual impact may be pronounced.

The visual impact assessment has involved the following stages:

- Identification of principal visual receptors and an indication of their sensitivity to changes in their view related to the implementation of the proposals.
- Site survey to verify receptors and determine the potential magnitude of impact for the identified receptors arising from the proposals.
- Assessment of visual impacts which, at this stage, is limited to the broad visual context, identifying the principal visual receptors and key views along with the number of properties potentially affected by the proposals, with an indication of the likely impacts.

In order to assess the significance of any impacts, the sensitivity to change of the receptors and the likely magnitude of change were considered as outlined below.

Sensitivity of the Visual Receptors/Viewpoints

The sensitivity of the visual receptors/viewpoints was assessed by evaluation of a range of factors, including:

- The nature and context of the viewpoints.
- An assessment of the expectations of users/receptors.
- The importance and value of the landscape in the view.
- The nature of the existing view.

‘Importance’ in the context of ‘landscape in the view’ relates to the aspect of the building or viewpoint in relation to the view. ‘Value’ in the context to ‘landscape in the view’ relates to the degree of visual amenity of the view. In the case of roads and footpaths, the type of users and degree of usage is taken into consideration, with business/commercial traffic being less sensitive than visitor/leisure traffic.

The criteria used to determine the sensitivity of the receptors to visual changes associated with development are shown in Table 6 below.

Table 6: Sensitivity of Receptors to Visual Change

Sensitivity	Criteria
High	Where the landscape in the view is considered to be of high value and importance to the receptor and any change would be noticeable and would affect visual amenity. e.g. residential properties with good open views / footpaths.
Medium	Receptors where the landscape in the view is not perceived as a major element in the overall view and not crucial to their visual amenity e.g. residential properties, sporting / recreational facilities.
Low	Receptors where the landscape in the view is relatively unimportant / irrelevant and/or the users are not particularly sensitive change. e.g. Industry / places of work.
Negligible	Receptors where the works has little or no impact on the view. E.g. because of distance or it being obscured by in some way.

Magnitude of Visual Change

The assessment of magnitude of change includes the consideration of the likely effects of the change in the landscape on the views and visual amenity, taking into consideration the scale of the change to the landscape, the addition or loss of landscape elements, the change in landscape character and the amount/extent of the view affected.

The main elements of magnitude evaluation include:

- The extent of the receptors view affected by the development as a proportion of the view available.
- The distance of the receptor from the changed landscape.
- The angle of the view relative to the main activity of the receptor.
- The level of integration or contrast created by the road, the traffic on the road and its associated elements within the view.
- The potential for effective mitigation of adverse impacts and opportunities for landscape enhancement.

The criteria used to determine magnitude of changes are shown in Table 7 below.

Table 7: Magnitude of Visual Change Criteria

Magnitude	Criteria
High	The proposals dominate the view and fundamentally change its character and components.
Medium	The proposals are noticeable in the view, affecting its character and altering some of its components and features.
Low	The changes are only a minor element of the overall view that are likely to be missed by the casual observer and/or scarcely appreciated.
Negligible	The changes are minor or virtually imperceptible.

Significance of Impact

The significance of impact (adverse or beneficial) was determined using a matrix of sensitivity and magnitude, as shown in the Table 8 below. As with consideration of landscape impact significance, professional judgement and experience were used to confirm the assessment of significance taking into account that the criteria represent levels on a continuum or continuous gradation depending on the relative importance of sensitivity and magnitude.

Table 8: Significance of Visual Impact Ratings

Sensitivity	Magnitude			
	High	Medium	Low	Negligible
High	Major	Major/Moderate	Moderate	Slight
Medium	Major/Moderate	Moderate	Slight	Negligible
Low	Moderate	Moderate/Slight	Slight/Negligible	Negligible
Negligible	Slight	Slight/Negligible	Negligible	Negligible

For the purpose of both landscape and visual assessment, impacts of moderate and/or major are considered to be significant, as this is the level at which changes would be clearly perceived and mitigation measures considered essential to ensure that the operations are properly integrated into and related to their setting.