CHAPTER 2: APPROACH

Introduction

- 2.1 This chapter describes the methodology used to undertake the EIA in accordance with the Town and Country Planning (Environmental Impact Assessment) (England) Regulations 2011 (SI1824/ 2011), (hereafter referred to as 'the EIA Regulations') and relevant guidance documents.
- 2.2 The chapter begins with a description of the general approach to assessment and EIA regulatory compliance for outline planning application, including how the planning application re-submission and EIA are linked and the EIA parameters that have been used to assess the proposed development. EIA procedure and methodology is presented, then the stakeholder consultation process is explained and the responses of consultees listed, before the spatial and temporal scope of the assessment is discussed.
- 2.3 Following this, the receptors considered sensitive to the development are identified and the criteria used for impact prediction, assessing significance and implementing and securing mitigation measures are explained, along with any limitations and assumptions. With regard to the methodologies and assumptions for the technical assessments, each chapter has its own specific assessment methodology and assumptions, which are explained within the relevant sections.
- 2.4 A wide range of experience, resources and skills have been coordinated in order to bring together this application and the project team, along with their professional roles, is presented at the end of this chapter.

EIA Procedure and Methodology

EIA and Regulatory Compliance

- 2.5 The EIA Regulations, supported by precedents from UK case law, have established a code of compliance for the process of EIA and the contents of environmental statements. More specifically, as a result of a legal case associated with Rochdale Metropolitan Borough Council¹, the 'Rochdale Envelope Principle' is now an accepted way of dealing with uncertainty in preparing and assessing development projects, specifically those proposed through outline applications where full detail is not available. The approach requires that the assessment is based on a series of development parameters that allow the education of a worst case scenario that is reasonably representative of the development, that will be delivered and with which subsequent reserved matters applications will comply.
- 2.6 In order to meet these requirements, the applicant invites SMDC to impose planning conditions relating to the development parameters and consistency of the application proposals with subsequent reserved matters applications. The purpose of applying planning conditions is to ensure that the scheme does not progress in a manner that is markedly different to that against which the environmental effects were assessed.
- 2.7 The Applicant is of the opinion that by attaching planning conditions, the environmental assessment of the application, as presented in this ES, will be

¹ R V Rochdale Metropolitan Borough Council ex parte Tew [1999] 3 PLR 74 and R v Rochdale Metropolitan Borough Council ex parte Milne [2001] 81 PCR 27

Figure 3.1

sufficient to support future reserved matters applications. If, at the reserved matters stage, the detailed proposals exceed the assessment parameters of the EIA then further assessment may be required. This would be determined through further consultation with SMDC at the appropriate time.

EIA Parameters

Restoration Plan

2.8 The EIA has identified and developed certain parameters for assessment. These parameters, along with the written description of the proposed development [Ref: Chapter 5: The Proposed Development], allow the likely significant effects of the proposals to be fully assessed and appropriate mitigation measures secured. The EIA parameters and other supporting plans are presented in Table 2.1 and Table 2.2 below:

EIA Parameters	Purpose	Reference	
Outline Planning Application Boundary	Defines the extent of the site and the proposed development.	Figure 1.1	
Parameters Plan	Defines the type of development, maximum building heights and open space within identified zones.	Figure 5.2	
Means of Access Plans	Defines the means of access to the site, which have been applied for in	Figure 5.4	

detail.

Table 2.1: Assessment Parameters

Table 2.2: Su	innorting	Plans and	Information
			Information

Supporting Plans	Purpose	Figure Reference
Illustrative Masterplan	To provide an indication of the likely development and allow informed assumptions to be used.	Figure 5.1
Character Area Plan	To provide zones for the purpose of description	Figure 5.3
Site Sections	Provides an indication of the proposed earthworks required to facilitate the development	Figure 5.5

The approved restoration plan for the quarry represents the baseline for the assessments in the EIA.

- 2.9 The Design and Access Statement (prepared by Planit-IE), which accompanies the planning application re-submission, presents further indicative information about the proposed development.
- 2.10 A detailed description of the EIA parameters is presented in Chapter 5: The Proposed Development.

Quantum of Development

2.11 The Moneystone Quarry application is re-submitted in outline with means of access and seeks planning consent for:

"The erection of a high quality leisure development comprising holiday lodges; a new central hub building (providing swimming pool, restaurant, bowling alley, spa, gym, informal screen/cinema room, children's soft play area, café, shop and sports hall); café; visitor centre with farm shop; administration building; maintenance building; archery centre; watersports centre; equipped play and adventure play areas; multi-sports area; ropewalks; car parking; and managed footpaths, cycleways and bridleways set in attractive landscaping and ecological enhancements (re-submission of Planning Application SMD/2014/0682)".

2.12 Although the amount of development to be delivered on site will be confirmed through subsequent reserved matters applications, the following table summarises the maximum quantum of development that has been assumed for the purposes of undertaking the EIA, unless otherwise stated within a technical chapter.

Accommodation	Description	Indicative Quantum of Development
Lodges Lodges		Up to 250 units
Leisure Hub Building	Swimming Pool and toddler pool and plant	Up to 415 m ²
	Restaurant/Bar and outside terrace	Up to 500 m ²
	Bowling alley	Up to 140 m ²
	Spa	Up to 150 m ²
	Gym with studio	Up to 100 m ²
	Informal screen room	Up to 80 m ²
	Children's soft play area	Up to 145 m ²
	Café	Up to 70 m ²
	Sports Hall	Up to 320 m ²
	Reception area	Up to 145 m ²
	Shop	Up to 50 m ²
Lake Café	Café	Up to 130 m ²
Visitor Centre	Visitor Centre with farm shop	Up to 490 m ² (including up to 400 m ² retail use)
Archery Centre	Archery Centre	Up to 260 m ²
Administration Building	Administration Building	525 m ² (as existing)
Maintenance Depot	Maintenance Depot	Up to 500 m ²
Substation	Substation	600 m ² (existing compound)
Mini-sports area	Multi-Sports Area	Up to 1,400 m ²
Equipped Play Area	Equipped Play Area	Up to 500 m ²
Woodland Activity	Adventure Play Area	Up to 500 m ²
Area	Ropewalks	Up to 5,000 m ²
Car Parking	Short Stay	Up to 170 spaces
_	Secure Long Stay	Up to 150 spaces
	Staff	Up to 67 spaces
	Coach	Up to 5 bays
	Watersports Centre	Up to 26 spaces
Footpaths/Cycleways	Footpaths/Cycleways/Bridleways	-
Watersports Centre	Watersports Centre	Up to 500 m ²

Table 2.3: Indicative Quantum of Development

Floorspace and Parameters

2.13 The outline application re-submission is supported by an Illustrative Masterplan as referred to in Chapter 5: The Proposed Development. Whilst the masterplan is indicative only, it is a useful tool with which to develop and agree key development principles for the site for later reserved matters applications. It has

also been used to make informed assumptions about the likely effects of the proposed scheme.

- 2.14 The outline application also seeks approval by condition for scale parameters of each use set out in Table 2.3 above, with reference to the land use and building heights parameter plans which accompany this application. The parameters plan identifies and groups the various buildings proposed in the scheme in order to confirm the location of the proposed land uses. This is fundamental for assessment purposes. The parameters plan also indicates the height limits of each of the proposed land uses.
- 2.15 The parameters plan defines the maximum scale parameters of each of the land uses which have been used for the purposes of the technical assessments as contained in Chapters 7-15. This also provides an element of fixing which has informed the design and layout of the proposed Illustrative Masterplan. Fundamentally, the scale parameters have been used for the purposes of the assessment as until detailed design, the exact dimensions of each building cannot be identified and an indicative maximum limit is therefore specified.

Screening

2.16 Regulation 5 of the EIA Regulations makes provision for a developer to request a 'Screening Opinion' from the Local Planning Authority (LPA) to ascertain whether an EIA is required if a development is classed as a Schedule 2 development. This decision is based on the likelihood of significant environmental effects arising in relation to the development proposals. It has been assumed for the purposes of the application that a statutory EIA will be required and therefore the Applicant has undertaken an EIA on a voluntary basis in respect of the proposals. It is accepted that the development falls within Schedule 2 (10c) 'Holiday Villages and Hotel complexes outside urban areas and associated development', for the purposes of the EIA Regulations.

Scoping

- 2.17 Scoping is a process that, through research and consultation, identifies the environmental issues that require assessment as part of the EIA. This essentially refines the focus of the EIA on the important issues whilst also ensuring that no potentially significant areas are overlooked.
- 2.18 In accordance with Regulation 10 of the EIA regulations, a formal request for a Scoping Opinion was made. An initial Scoping Opinion was made to SMDC in January 2011, in the form of an EIA Scoping Report. This report focused on the impacts of an early iteration of the development proposals which were considerably larger in scale than the current proposals. The Scoping Opinion, which was issued by SMDC in January 2012, can be found in **Appendix 2.1**.
- 2.19 Following Masterplan revisions, the scope of the EIA was agreed with SMDC ahead of the submission of the 2014 application through a formal Scoping Opinion issued by the Council on 9 October 2014 (**Appendix 2.2**). The amendments as part of the re-submission are not consider to be significant nor has the sensitivity of the site changed as to require a revised scoping opinion from SMDC.
- 2.20 A summary of the main comments are found in Table 2.4. The table includes an indication of where in the ES the responses to the comments may be found.

Table 2.4: Comments on EIA Scope (2012 and 2014)

Торіс	Consultee	Comments	Action
General	Staffordshire County Council (SCC)	 The site location plan excluded parts of the quarry such as water bodies and some habitat areas. SCC considered exclusion of these areas would not result in a robust approach to assessment. Water based recreation areas should be included within the application site. 	The red edge boundary plan and other supporting plans have been adjusted to include the waterbodies and other areas in line with SCC recommendations.
LVIA	SMDC	 The adopted baseline for assessment needs to be the restoration scheme for the quarry. The development which extends beyond the quarried landscape will require assessment to determine acceptability and the efficacy of any proposed mitigation. 	The restoration scheme has been used as the baseline for assessment. Refer to Chapter 8: Landscape and Visual.
	Natural England	 The assessment should utilise the LVIA guidance within the EIA in line with the Institute of Environmental Management and Assessment's Guidelines for Landscape and Visual Impact Assessment 3rd Ed. (2013). Natural England will expect changes to be assessed in respect of the areas: Whole landscape character including its distinctiveness, individual or combinations of characteristics, quality and condition; The visual amenity of people who live and work in the area and who enjoy the area for its recreational and amenity value; Accessibility, including whether the proposed change would inhibit or enhance access to enjoyment of the natural environment; Biodiversity, including any species of flora or fauna that may be typically associated with the landscape character; Geo-diversity including effects on nationally and regionally (or locally) designated sites and features; Natural systems and processes that contribute to or are distinctive of the natural environment of the landscape; and The cultural heritage and historic sites and features; and 	Refer to Chapter 8: Landscape and Visual.

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	SCC	 Soils. It is important to make the distinction between the assessment of potential effects on the character of the landscape and on visual amenity, and that cumulative effects are assessed. The desktop study should also make reference to 'Planning 	Refer to Chapter 8: Landscape and Visual.
		for Landscape Change'. This will provide supporting information on landscape character and landscape sensitivity, and guidance that could be used to inform decisions on appropriate mitigation.	
Ecology	SMDC	 Saved policies in the Staffordshire Structure Plan need to be considered. Proposed and completed ecological surveys appear appropriate for the type, scale and location of the proposal and should allow for assessment of impacts and mitigation design. Assessment should consider, in addition to site impacts, ecological connectivity and effects at the landscape scale. For the quarry areas, assessment of impacts should use the baseline of the approved restoration plan and its habitats. Any change to the agreed restoration plan and its habitats. Any change to the approved restoration plan. Therefore, compensation for this habitat loss will be required, in addition to the protection of the SSSI and SBI. Layout of development and of habitats should maximise ecological connectivity, particularly for grasslands and should be such that appropriate long-term management, such as grazing, is feasible and sustainable and avoids conflict with recreational and commercial uses. Biodiversity policy would suggest that the Quarry 1 area proposed as natural habitat/wildlife should be predominately grassland with low levels of scrub sufficient to provide great crested newt habitats. Inclusion of sustainability features such as green roofs and natural habitat drainage systems such as reedbeds would be welcomed. Develop cohesive planting patterns that flow with the land form and optimise ecological connectivity for mammals, birds and invertebrates associated with woodland both within the site and in relation to habitats beyond the site 	Where appropriate the comments have been integrated into the design and development process to preserve ecology. Refer to Chapter 8: Ecology for further detailed information.

	boundaries.	
Natural England	 Liaison with the Local Staffordshire Ecological Records Centre is advised. Liaison with Natural England's Land Management Team is required in relation to current Environmental Stewardship Schemes. Survey for newts associated with ponds should be up to 500m, not the proposed 250m. Any planned or required demolition should be subject to bat surveys to determine any species likely to be affected. The EIA should comprehensively consider survey requirements including details of methodology, seasons, day and night timing etc. Surveys should address the potential for rare or protected invertebrate species. Assessment at present covers breeding birds, there should be some emphasis on species listed under Annex 1 of the Birds Directive (1979); any concentrations of regularly occurring migratory species; species listed under Schedule 1 (part 1) of the wildlife and Countryside Act (as amended) 2000; 'Priority' species listed under the UK Biodiversity Action Plan and any other important concentrations of birds (international, national, regional and local). The SSSI should not be assessed in isolation of the potential for impacts to the SSSI. 	
Environment Agency	 The value of the small headwater watercourses should be highlighted, in terms of their importance in feeding the River Churnet and as a habitat in their own right. The impact of the development on these watercourses should be considered. These watercourses should include buffer areas. The impact on the sites existing and future biodiversity potential from both formal and informal recreational uses needs to be fully assessed as part of the EIA process. The development of the site needs to be balanced with biodiversity enhancements. 	Refer to Chapter 9: Ecology.
SCC	 Ecological mitigation should follow the mitigation hierarchy of avoid, minimise, mitigate, compensate and enhance. With regards to Great Crested Newts, two visits is considered insufficient to allow for updated population assessment after 4 years and does not meet Natural England requirements for licensing as 2010 survey data is 	Refer to Chapter 9: Ecology

		 out of date. Natural England guidance for Great Crested Newt surveys and population size assessments should be followed, for example, four survey visits for water bodies where no Great Crested Newts are recorded and six visits where the species is recorded. Different survey methods should be employed in line with Natural England guidance. Breeding bird surveys should be comprehensive encompassing the entire site affected by the proposals. Transects for bat surveys should be agreed with SMDC. Should any woodland or trees be affected, e.g. by woodland based activities or lighting roost surveys of trees should be carried out. Impacts of lighting introduced to the site on bats should be assessed. A badger survey is required. Should the transport assessment indicate that any changes are required to the local road network, an assessment of the ecological impacts of these would be required and mitigation/compensation included. 	
Archaeology and Heritage	SMDC	 Study should follow the revised Institute for Archaeologists (2008) Guidance for Archaeological desk-based Assessment – not the 2001 guidance. Consult with Staffordshire County Council Historic Environment Team There should be reference to the 'potential effects or changes' of the proposed development on the Historic Landscape Character of the site and the surrounding area. 	r to Chapter 10: Archaeology and Heritage.
Ground Conditions	Natural England	Natural England would expect to be provided with Staffe	fordshire Geological Society will be consulted on submitted proposals.
	SCC	 The ground conditions assessment should be extended to assess the extent that the development will sterilise underlying and adjacent mineral resources. The following plans and policies are considered relevant to safeguard the minerals on site, and as such, will be relevant to the assessment: Adopted Minerals Local Plan: Saved Policy 5; NPPF: paragraphs 143 and 144; Emerging Minerals Local Plan: Policy 3; NPPG defines Mineral Safeguarding Areas; 	er to Chapter 11: Ground Conditions

Drainage and Flood Risk	Environment Agency	 Mineral Safeguarding in England: Good Practice Advice; and Provision of Geological Information and a Revision of Mineral Consultation Areas for Staffordshire County Council. A site evaluation is required to indicate whether viable reserves of minerals remain and is so, the extent to which any remaining reserves would be sterilised. There should be assessment of the silica sand resource currently present on site. The applicant should consider whether the proposal would 'seriously hinder' the future winning and working of minerals on land to the north-west of the quarry, allocated as an 'Area of Search' Consideration should be given to the impact of the development in restricting the potential use of the conveyor route and access to the rail line in conjunction with an assessment of the impact of the proposal on underlying and adjoining mineral reserves. Flood risk needs to be assessed and sequentially managed so that vulnerable aspects of the development are located in areas of lowest flood risk and flood risk to others should not be increased and wherever possible be decreased. Surface water drainage should mimic natural drainage, and designs should adopt latest best practice such as sustainable drainage in accordance with CIRIA Manual 697. Where possible, any presently modified watercourses should be restored to natural forms. Groundwater resources must be safeguarded by appropriate management of any fuel storage or other hazardous substances; appropriate disposal arrangements for foul waste/sewage; appropriate disposal arrangements for foul also affect ground water quality and should therefore also be subject to analysis and consultation with the Environment Agency in respect of any infill material brought on to the site. Any re-distribution of materials within the site could also affect ground water quality and should therefore also be subject to analysis and consultation checks w	Refer to Chapter 12: Drainage and Flood Risk.
	Natural	also affect ground water quality and should therefore also	Refer to Chapter 12: Drainage and Flood Risk

	England	 may have a higher flow rate once the quarry works have ceased, and there are numerous ponds locally. In relation to the designated sites, likely impacts include the disturbance of birds during construction, release of contaminated water and dust during and post construction, as well as loss of habitat and operational air quality impacts. Information on foul water disposal will be required as well as potential impacts from the increase in sewage to designated sites and protected species and habitats. The Geology and Hydrology section should reference 	Defer to Chapter 12: Drainage and Eleged Disk
	SCC	• The Geology and Hydrology section should reference hydrological links with the Whiston Eaves SSSI.	Refer to Chapter 12: Drainage and Flood Risk
Transport and Access	SMDC	• Proposed scope of Transport Assessment is acceptable, subject to agreement with the Highway Authority.	Scope agreed with the Highway Authority.
	Natural England	 As there are Public Rights of Way (PROWs) present on site, the EIA should provide information on how these would be affected. 	It is intended that the existing PRoW routes within the site boundary will either be retained in their current form or retained and enhanced as part of the development proposals. The existing ProW routes outside of the site will be retained as existing. For further detailed information refer to Chapter 15: Transport and Access
	SCC	• Impacts on PROWs should be considered within the EIA.	As above.
Air quality and Dust	Natural England	• The EIA should consider any impacts of the development on and off-site from both construction and operation, such as air quality.	Refer to Chapter 14: Air Quality
Noise and Vibration	Natural England	The EIA should consider any impacts of the development on and off-site from both construction and operation, such as noise.	
Waste	SCC	 The approach of the assessment should be extended to ensure that all relevant aspects of the below policies are addressed: Staffordshire and Stoke-on-Trent Joint Waste Local Plan 2010-2026: policy 1.2; and Planning Policy Statement 10: Planning for Sustainable Waste Management: paragraphs 34 and 35. 	Refer to Chapter 16: Waste
Cumulative Impacts	SCC	The proposed equestrian centre on land at Crowtrees Farm The proposed equestrian centre on land at Crowtrees Farm and the solar farm application should be considered for cumulative impacts in terms of landscape and ecological impacts. The proposed equestrian centre on withdrawn from the planning process. development is not included as cumulative impact assessment.	

Consultation

- 2.21 An integral part of the EIA process is consultation with a range of statutory and non-statutory consultees. Consultation was undertaken at the scoping stage to identify any initial environmental concerns associated with the proposed development that required examination in greater detail in the EIA. These consultees are as shown in Table 2.4 above.
- 2.22 Consultation was also undertaken as part of the technical assessments as a means of establishing the environmental baseline and assessment methodologies. This included identifying sensitive components of the environment, e.g. humans, organisms or physical characteristics, or potential effects and reaching consensus on suitable mitigation measures. Details of further consultation undertaken as part of each technical assessment is described further within each technical chapter.

Pre-Application Discussions

2.23 Consultants acting on behalf of the Applicants have engaged with SMDC and all relevant statutory and regulatory bodies as part of an extensive pre-application discussions exercise. Pre-application meetings between the professional team have taken place where a range of technical and design issues have been discussed to ensure a 'development team' approach was established.

Community Consultation

- 2.24 Due to the length of the development process and the ongoing design process, the development has been subject to a series of consultations since 2011.
- 2.25 The applicant originally launched initial consultation on the original proposals in February 2011. The initial proposals were on a far greater scale and included 640 lodges, a hotel, housing, a caravan site, along with a holiday leisure complex with associated facilities.
- 2.26 Following the initial proposals, plan revisions were implemented and a series of consultations have taken place:
 - Stakeholder Preview Event for Parish Councillors on Tuesday 8th February 2011 at Whiston Village Hall;
 - Public Exhibition on Wednesday 9th February 2011 between 2pm and 9pm at Whiston Village Hall;
 - A meeting with Ipstones Parish Council and Laver Leisure in 2011;
 - Two meetings were held with local MP Karen Bradley to provide an update on the proposals;
 - A meeting with Oakamoor Parish Council on 23rd February 2012; and
 - An updated Public Exhibition on Tuesday 15th July 2014 between 3pm and 7pm at Whiston Village Hall.
- 2.27 The format of the Public Exhibitions was agreed with Council Officers and allowed sufficient time for anyone with an interest in the future development of the site to view and comment upon the proposals.
- 2.28 The Public Exhibition was widely advertised and a flyer was sent to all local residents. Posters were also displayed in key public buildings within the area leading up to the Public Exhibition. Through the duration of the event, appropriate signage to the Public Exhibition was displayed.

- 2.29 The exhibition was manned by members of the development team who were on hand to answer questions and to explain the proposals. Large scale coloured drawings were presented on A1 boards and roller banners to encourage participation.
- 2.30 This application resubmission addresses the comments made by members of the Planning Committee and the key issues raised in the reasons for refusal of the 2014 planning application as described in Chapter 1.
- 2.31 Further detail on the consultation process can be found in the Statement of Community Involvement submitted with the planning application.

EIA Methodology

2.32 EIA has been undertaken in accordance with the EIA Regulations, National Planning Practice Guidance and specific best practice guidance for each technical assessment.

Consistency

- 2.33 To assist the reader in understanding the technical assessments a consistent approach has been adopted throughout the EIA to ensure that likely significant effects are identified and evaluated in a transparent manner. Each environmental assessment topic has adopted the following approach:
 - Baseline Assessment and Identification of the Study Area;
 - Identification of Sensitive Receptors;
 - Identification of Potential Effects during Construction and Operation of the Proposed Development (including indirect, direct, adverse and beneficial);
 - Assessment of Impact Significance;
 - Identification of Mitigation Measures; and
 - Assessment of Residual Effects.

Cumulative Effects

2.34 An assessment of cumulative effects, which is described as the potential effects of the proposed development in conjunction with changes arising from other developments in the surrounding area, is presented in Chapter 17: Cumulative Impacts. All past, present and reasonably foreseeable developments have been considered as part of the cumulative effects assessment. The scope of the cumulative effects assessment has been agreed in advance with SMDC and incorporates the cumulative impacts of the proposed development in conjunction with the proposed solar farm development on the adjacent site and the proposed development at Bolton Copperworks, Froghall.

Spatial and Temporal Scope of Assessment

- 2.35 The spatial extent of the EIA is described by the geographical area potentially affected by the proposed scheme and will need to take into account:
 - The physical extent of the proposed scheme, defined by the limits of land to be used both during construction and operation (temporary and permanent);
 - The nature of the baseline environment and the way in which the impacts are likely to be propagated; and
 - The governmental administrative boundaries which provide the planning and policy context for the proposed scheme.

2.36 The effects for each of the disciplines are likely to be confined to different spatial extents. However, to assist with the description of the context within which a significant effect may arise, a wider area may need to be examined. The spatial scope for each discipline is described within each of the topics chapters.

Baseline Conditions

- 2.37 It has been agreed with SMDC that the environmental baseline for the EIA is based upon current conditions of the site, and the conditions that would be present following the implementation of the Approved Restoration Plan. Further detail on the Restoration Plan is provided in Chapter 3: Site Description. Therefore, each technical chapter contains a description of the relevant study area that may be affected by the scheme in terms of both baselines, as appropriate.
- 2.38 The environmental baseline studies undertaken as part of the EIA consider the current conditions of the site. Therefore, each technical chapter contains a description of the relevant study area that may be affected by the scheme. It should be noted that as part of the planning application re-submission, baseline studies have been updated where required. This is detailed in the technical chapters where relevant.

Impact Prediction

2.39 The EIA Regulations state that:

...an ES should include a description of the likely significant effects of the development on the environment, which should cover the direct effects and any indirect, secondary, cumulative, short, medium and long-term, permanent and temporary, positive and negative effects of the development, resulting from:

(a) the existence of the development;

(b) the use of natural resources; and

(c) the emission of pollutants, the creation of nuisances and the elimination of waste.

- 2.40 Predictions of environmental impacts are carried out using quantitative methods, or in some cases, qualitative terms using expert opinion. All assumptions used and any areas of uncertainty are defined in the relevant chapters.
- 2.41 The following types of effect are considered:
 - Direct impacts that arise from activities that form an integral part of the proposed scheme (e.g. new infrastructure/landtake);
 - Indirect impacts that arise from activities not explicitly forming part of the proposed scheme (e.g. noise changes due to changes in road traffic flows on existing roads resulting from the operation of the scheme);
 - Secondary impacts that arise as a result of an initial effect of the proposed scheme;
 - Permanent impacts that result from an irreversible change to the baseline environment (e.g. landtake) or impacts which persist for the foreseeable future (e.g. visual impact);
 - Temporary impacts that persist for a limited period only, due for example to particular construction activities (e.g. noise from construction plant);
 - Beneficial impacts that have a positive influence; and
 - Adverse impacts that have a negative influence.

- 2.42 The assessment will address effects arising from the construction and operation of the proposed scheme as follows:
 - Construction effects may arise directly from construction activities but also from the temporary use of land (e.g. construction sites) or from associated changes in traffic movements (e.g. diversions); and
 - Operational effects may arise from the new or modified infrastructure.

Significance Criteria

2.43 The significance of an effect is assessed by looking at what the changes will be against the existing, or predicted baseline as a result of both the construction and operation of the scheme. It is a product of the sensitivity of the receptor, and the magnitude of the impact upon it. The criteria used to define the sensitivity of a receptor and magnitude of impact is provided in Table 2.5 and Table 2.6 below. These criteria have been developed in accordance with the relevant legislation and guidance noted above.

Sensitivity	Typical descriptors
Very High	Very high importance and rarity, international scale and very limited potential for substitution.
High	High importance and rarity, national scale, and limited potential for substitution.
Medium	High or medium importance and rarity, regional scale, limited potential for substitution.
Low	Low or medium importance and rarity, local scale.
Negligible	Very low importance and rarity, local scale.

Table 2.5: Description of the Sensitivity of an Environmental Receptor

2.44 Descriptions of the magnitude of impact are provided in Table 2.8 below.

Table 2.6: Description of the Magnitude of an Impact

Magnitude of impact	Impact Type	Typical criteria descriptors
Very Large	Adverse	Loss of resource and/or quality and integrity of resource; severe damage to key characteristics, features or elements
	Beneficial	Large scale or major improvement of resource quality; extensive restoration or enhancement; major improvement of attribute quality
Large	Adverse	Loss of resource, but not adversely affecting the integrity; partial loss of/damage to key characteristics, features or elements
	Beneficial	Benefit to, or addition of, key characteristics, features

		or elements; improvement of attribute quality
Moderate	Adverse	Some measurable change in attributes, quality or vulnerability; minor loss of, or alteration to, one (maybe more) key characteristics, features or elements
	Beneficial	Minor benefit to, or addition of, one (maybe more) key characteristics, features or elements; some beneficial impact on attribute or a reduced risk of negative impact occurring
Slight	Adverse	Very minor loss or detrimental alteration to one or more characteristics, features or elements
	Beneficial	Very minor benefit to or positive addition of one or more characteristics, features or elements
No change	n/a	No loss or alteration of characteristics, features or elements; no observable in either direction.

Identification of Significant Effects

- 2.45 Based on the sensitivity and magnitude criteria set out above, specific significance criteria have been used in each technical assessment and these are explained in the methodology sections within each technical chapter. However, wherever possible, the following terminology has been utilised:
 - Major Beneficial
 - Moderate Beneficial
 - Minor Beneficial
 - Negligible
 - Minor Adverse
 - Moderate Adverse
 - Major Adverse
- 2.46 Where potential environmental impacts have been found, further to assessment, to be of no significance, they are said to have no effect.
- 2.47 The assessment of likely significant effects will be undertaken for all potential effects to determine their relative importance. This has taken into account the following;
 - Magnitude (size of impact);
 - Sensitivity of the surrounding environment and receptors;
 - Spatial extent (size of the area affected);
 - Duration (short, medium or long term);
 - Nature of the effect (direct or indirect, reversible or irreversible);
 - Inter-relationships and combination effects;
 - International, national or local standards; and
 - Relevant policy guidance.
- 2.48 With regards to the duration of effects, the EIA will consider whether the effect will be continual or intermittent over the period of time identified. This is displayed in Table 2.7 below.

Table 2.7 Determination of Duration of Effect

Duration of Effect				
Classification	ssification Short Term			
Guideline	0-5 years	5+ years		
	(Construction & Early	(Operational		
	Stages of Operation)	Development)		

Mitigation

2.49 The development of measures designed to avoid, reduce or offset significant adverse environmental effects associated with a proposal is one of the key elements of EIA. Measures to mitigate any environmental effects of the proposed development have been incorporated into the proposals throughout the design evolution. Where environmental mitigation measures have not been integrated into the proposals through design, it is expected that all other requisite measures will be secured by appropriate planning conditions. Descriptions of these mitigation measures are included in the appropriate technical chapters and summarised in Chapter 17: Summary of Mitigation and Residual Effects.

Limitations and Assumptions

2.50 The EIA has been undertaken based on the planning application re-submission drawings, parameters plans and descriptions of the development submitted as part of the planning application re-submission. The technical assessments have been based on the current land uses and the existing and Restoration Plan baseline conditions. Any assumptions made or limitations relating to individual technical assessments are presented, where applicable, in the relevant technical chapters.

The Project Team

2.51 The EIA has been commissioned jointly by the applicants. This ES has been compiled using a wide range of sources and with inputs from technical specialists. The organisations and their roles in the project team are listed in Table 2.8, below:

Table 2.8: The Project Team

Discipline	Company
Client	Laver Leisure Limited
Planning Consultants and EIA Coordination	HOW Planning LLP
Masterplanners and Landscape and Visual	Planit-ie
Assessors	
Socio Economics and Tourism	Regeneris and Christie and Co.
Ecology and Nature Conservation	Bowland Ecology
Tree Survey	Urban Green
Ground Conditions, Drainage and Flood Risk	Abbeydale BEC
Archaeology and Cultural Heritage	Liverpool Archaeological Unit and
	Orion Heritage
Transport and Access	Royal HaskoningDHV
Air Quality and Dust; Noise and Vibration; and Waste	WSP