4 Key Environmental Issues

4.1 INTRODUCTION

4.1.1 The proposed scheme is described in Chapter 3 of this Environmental Statement. The redevelopment of this site represents a significant investment in a brownfield site with a number of constraints. Underlying the development concept has been the aim to strike a balance between meeting development needs and generating sufficient returns to achieve regeneration and renewal, creating sustainable and efficient buildings and an attractive and accessible green space.

4.1.2 The following table outlines the potential environmental effects as a result of the development proposed. The extent and severity of the various issues, together with mitigation measures, are outlined in the subsequent chapters of this document.

ENVIRONMENTAL ISSUE	POTENTIAL ENVIRONMENTAL EFFECT
Human Impacts	▫ Employment Opportunities ▫ Increased access to green space ▫ Health improvements ▫ Increased retail choice ▫ Air Quality and Dust ▫ Noise and Vibration ▫ Visual Impact ▫ Transport
Transport and Access	▫ Impact of construction traffic ▫ Increase in traffic on adjacent highway network, with implications for safety of road users ▫ Increases in traffic noise, air pollution and fumes ▫ Reduced traffic on Twibell Street as a result of new access arrangements ▫ Impact on Bus Quality Corridor from increased traffic
Air Quality and Dust	▫ Potential dust and particulate releases during building clearance and construction ▫ Short/medium term changes in local air quality due to exhaust emissions from site traffic and site plant during site preparation and construction ▫ Exhaust emissions from operational traffic and servicing ▫ Environmental emissions from uses and plant within the development
Noise and Vibration	▫ Noise and vibration impact resulting from construction activities ▫ Building services noise ▫ Noise associated with Petrol Filling Station and Car

	wash ▫ Delivery and service vehicles noise ▫ Road traffic noise ▫ Noise from service yard activities
Ground Conditions and Contamination	▫ Demolition and site excavation may expose additional contaminating substances due to previous uses on the site ▫ Potential for pollution incidents associated with construction, plant activities and later during the operational phase ▫ Creation of new contaminant pathways ▫ Alteration of migration pattern of any current mobile contamination including ground gases
Drainage, Flooding and Water resource	▫ Potential flood risk to nearby off site properties at a lower level from raised ground levels ▫ Potential groundwater flood risk dependent on capacity of local drainage systems to cope with increased demand ▫ Possible flood risk due to increased surface water runoff associated with new development
Ecology and Nature Conservation	▫ Potential effects on habitats and protected species during construction and operational phases ▫ Potential disruption of roosting, foraging and commuting bats ▫ Potential pollution and contamination of the River Dearne ▫ Potential impacts on foraging and commuting Otters. ▫ Spread of invasive weeds. ▫ Positive contributions towards long-terms biodiversity gain.
Sustainability	▫ Ensuring that the best use is made of urban land ▫ Ensuring that car use is reduced and that alternative forms of transport are promoted ▫ Ensuring that the impact of buildings can be minimised through the use of sustainable building techniques and materials ▫ Ensuring that the use of natural resources is minimised ▫ Creating the opportunity for bio-diversity
Landscape and Visual Analysis	▫ Impacts upon public views within and adjoining the site during the construction phase ▫ Impact on outlook from adjoining properties and the

	town centre and aerial views ▫ *Change to urban character and quality of the site and* the surrounding area ▫ Visual impact of construction effects – temporary lighting, fencing, site access, security measures, temporary buildings, intense activity, cranes
Lighting	▫ Increase in light spill and glare (associated with lighting installations) to existing local residential *receptors* ▫ Increase in glare to existing and future road users including pedestrians, cyclists and motorists. ▫ *Change in night-time scene as viewed by local* residential receptors

4.1.3 *These key environmental issues are appraised in detail in the following Chapters of this Statement.*