

ENVIRONMENTAL ISSUE	BASELINE CONDITIONS	DESCRIPTION OF IMPACT (AFTER MITIGATION)	RELATIVE SIZE & NATURE OF IMPACT	
			Construction Phase	Operational Phase
<b>Archaeology &amp; Cultural Heritage</b>	<p>Most of the identifiable sites within the proposed development relate to its industrial development since the late 19th century. However, the majority of these have been destroyed by development of the area since 1950 and the area retains little evidence of its industrial heritage.</p> <p>Soils and alluvium at depth beneath the made ground may include material dating from periods of local occupation from Bronze Age through to the Roman period</p>	<p>There may be some potential for archaeological finds on the site, but there is no opportunity for pro-active investigation for these so an archaeological specialist will be given a watching brief over the construction works to examine any finds that come to light. Where possible samples will be taken during the construction period for analysis on age and pollen type</p> <p>Once redeveloped any artefacts will be inaccessible, which is the case at present and thus there will effectively be no change from the baseline situation, but a temporary opportunity to examine sub-surface soils.</p>	●	●
<b>Air Quality &amp; Climate</b>	<p>Within the Borough of Halton there are numerous industrial processes which result in emissions to air. Additionally there are a number of roads where traffic flows exceed 10,000 per day which could give rise to elevated pollution levels.</p> <p>On the site itself, there are odours from Steward's Brook (due to chemical contamination from upstream) and immediately adjacent to the site is the PDM rendering plant which has occasional strong odours associated with it.</p> <p>During the initial round of assessment carried out by Halton Borough Council (HBC) as part of its duties as the Competent Authority for air quality in the Borough, it was concluded that there would be no breaches of the air quality objectives for Carbon Monoxide, Benzene, 1,3-Butadiene and Lead. With regards to the objectives for Nitrogen Dioxide, Sulphur Dioxide and PM<sub>10</sub> these were likely to be achieved throughout the whole borough except in two 'hotspot' areas where the risk of breaching the objectives was identified to both vehicle and industrial emissions. The first location was a 50m corridor along the Runcorn-Widnes Bridge approach roads and the second included two industrial boiler plants on the West Bank Dock Industrial Estate. Both are located to the east of the development site.</p>	<p>Impacts of the construction phase on both nuisance dust and local air quality have been assessed with regards to the location of locally sensitive receptors. Impacts are predicted to be low at all receptors and insignificant with the implementation of common practice (and often mandatory) mitigation measures. The air emissions will not bring about an exceedence of the air quality objectives for key pollutants, which are set to be protective of human health. Consequently, the development proposals are not predicted to have a human health impact.</p> <p>Construction workers in close contact with the contaminated soils will be required to comply with strict health and safety procedures and wear appropriate personal protective equipment (PPE), when in active work areas to avoid exposure to airborne particles so the risks here are minimal.</p> <p>Impacts from the operation of the development have been predicted as low. The location and nature of the site, being open and adjacent to the Mersey, promotes the dispersion of pollutants, reducing possible impacts on local air quality. Data from the national atmospheric emissions inventory indicates that rail transport contributes less than 2% of all pollutant emissions in the vicinity of the proposed development. A maximum increase in rail movements of 3 trains per day would have an insignificant impact on local air quality.</p> <p>Traffic volumes will increase as a result of the development but modelling indicates that this will not be to the extent that air quality will be adversely impacted.</p> <p>Using the NSCA guidance for assessing the significance of air quality impacts, the impacts on ambient pollutant concentrations arising from the operational aspects of the proposed freight terminal are considered to be of low priority.</p>	●	●
<b>COMAH Risk Assessment</b>	The current site is adjacent to the Tessengerlo former chemical facility which is COMAH registered and which has a consultation zone that encompasses the development site. The current site has an escape route and emergency vehicle access route.	The COMAH facility itself has now been demolished and even though the COMAH consultation designation remains on file, there are no COMAH risk issues associated with this site any longer.	●	●
<b>Ecology &amp; Nature Conservation</b>	The site is located about 150 metres to the north of the north bank of the Mersey Estuary, which is designated as a Site of Special Scientific Interest (SSSI), a Special Protection Area (SPA) and as a Wetland of International Importance under the Ramsar Convention. The proximity to the Mersey	<p>The construction phase will disturb some vegetated areas on the site but these are of low ecological value. The works are unlikely to create disturbance to nearby significant habitat sites.</p> <p>There is a risk of pollution incidents through either spillage or the release of sediment into the Estuary via drainage and the streams</p>	●	●

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	<p>Estuary is therefore a key issue with respect to ecology and nature conservation.</p> <p>Most of the development site itself is of minimal environmental value but there are important local wildlife corridors along the Ditton and Steward's Brook and a developing meadow and wooded habitat on the Reclamation Site.</p> <p>Teal and redshank are found in the Mersey in internationally important numbers. An average of 30 teal were counted in Ditton Brook at high tide whilst small numbers of redshank were counted on the exposed mud during low tide.</p> <p>There are a number of locally important plant species in the alkaline soil along the stream banks including southern marsh orchid, together with common spotted and at least one other marsh orchid species,</p> <p>Japanese knotweed, a species listed under Section 14 of the Wildlife &amp; Countryside Act 1981, is present in pockets and precautions will need to be taken to prevent the spread of this plant.</p> <p>The Reclamation Site also supports a range of bird species including skylark, a UK and Local Biodiversity Action Plan priority species. The meadow area has a moderately diverse flora and may be an important invertebrate habitat.</p>	<p>during the construction phase. This risk will be controlled through the construction environmental management plan. The generation of potentially polluted water from the site during the operational phase will be considerably reduced and this will be of moderate benefit to the brooks and minor benefit to the Estuary as once developed only clean unpolluted water will be discharged from the site.</p> <p>There will be some loss of vegetated habitat along the section of Steward's Brook that will be infilled by the development, but this will be compensated for by the upgrade and enhancement of Marsh Brook and the landscaping improvements that can be made around the site generally.</p> <p>There will be minor losses to the overall vegetated area of the site but this will be mitigated by appropriate planting schemes plus improvements to the ecological management of the remaining green space through the long term environmental management plan</p> <p>There will be minor disturbance to the teal during the first phase of construction local to Ditton Brook. This will be counter-balanced by long term improvements from removal of motorised traffic from the bridge over the brook and provision of screening vegetation for the new development</p> <p>Planting will be designed to complement and enhance the existing vegetation by use of alkaline soils where appropriate.</p>		
<b>Landscape and visual character</b>	<p>The existing site and the surrounding area have an overall large scale, often degraded, industrial landscape character with low visual quality, low value and low sensitivity to change. The Mound and the two watercourses, however, are of moderate quality and sensitivity.</p> <p>The Mound and the adjacent Hutchinson Hill form a distinctive local character area due to their height and green and wooded nature which has moderate visual quality. The courses of Steward's Brook and Ditton Brook are important local green features with interesting ecology providing wildlife corridors and have moderate visual quality.</p>	<p>The proposed development will replace the majority of the existing, often run down, buildings and facilities with a good quality, well designed and coordinated development with substantial planting, including mature trees in prime locations, and good quality landscape treatment to create a 'flagship' development which will result in a considerable improvement to the existing landscape character of the area.</p> <p>The impact of the proposed development on landscape character is assessed as moderately beneficial. The visual impact will generally be low and beneficial.</p>	●	●
<b>Night Light</b>	<p>The site is currently illuminated with a mixture of High Intensity Discharge (HID) light sources such as High Pressure Sodium (SON) and Metal Halide (HQI) floodlights with the addition of some Tungsten Halogen (TH) and Low Pressure Sodium (SOX) fittings. It is clear that the lighting has evolved over many years without any concise strategy, resulting in a poor lighting installation. In addition, not all areas of the site are lit, therefore large areas of darkness remain, giving rise to concerns over safety for pedestrians, site workers and vehicle movement.</p>	<p>The proposed lighting design increases the number of luminaires and resulting illuminance levels around the site, whilst utilising a more efficient and controlled light distribution. Upward Wasted Light is reduced to 1.5% due to the full cut-off light distribution produced by the proposed luminaires.</p> <p>The proposed redevelopment of the site together with the new lighting installation will help enhance and improve the quality of the site whilst providing a safe working environment, in-line with current guidance and codes of practice but is functional lighting and is not intended to showcase the development</p>	●	●

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		The impact upon the surrounding human receptors is considered to be low beneficial. The impact upon the surrounding ecological receptors is considered to be neutral		
<b>Noise and Vibration</b>	<p>The main noise and vibration impacts that currently exist at the site relate to substantial traffic movements (road and rail) and loading and unloading of vehicles associated with current site operations (and those on neighbouring sites). The noise characteristics are a reflection of the industrial nature of the site setting and proximity to major arterial transport routes such as the main access approach to the Widnes – Runcorn Bridge and the Main Line Railway.</p> <p>This is not considered to be a particularly noise sensitive environment although it is recognised that there are some residential areas that could be impacted by noise, notably Hale Bank.</p>	<p>Noise levels from the construction of the development have been predicted at noise-sensitive properties in the vicinity of the site and impact of the noise assessed. Impacts are predicted to be of minor significance during the site preparation phase at receptors located in Hale Bank and a recently developed site (former ASDA site), and of no significance during any of the remaining phases or at any other receptors.</p> <p>It is predicted that construction of the proposed development will not give rise to perceptible levels of vibration at any off-site receptor, and as such impact of vibration from construction of the proposed development is predicted to be of no significance.</p> <p>During operation of the development, the only roads that are predicted to experience a readily perceptible increase in noise levels have no noise-sensitive receptors located close proximity and as such, this impact is considered to be of no significance. All remaining roads will experience imperceptible increases in noise, which when compared with the criteria adopted for this assessment and are also considered to be impacts of no significance.</p> <p>Increases in railway movements as a result of the proposed development are predicted to be negligible when compared with the relatively high levels of passenger trains that currently travel past the site. As such, it is considered that any increases in railway noise levels will be imperceptible at receptors and as such, of no significance.</p> <p>Noise from operations at the proposed development, such as the arrival and manoeuvring of freight trains, manoeuvring of HGV's and the operation of forklift trucks have been assessed, and during daytime, there is a positive indication that complaints are unlikely from operation of the proposed development. During the night-time, the advice contained within BS 4142 indicates that operational noise is much less than marginal in significance, approaching the complaints unlikely situation in most cases. When compared with the assessment criteria, operational noise during the day is likely to be of no significance at all receptors and during the night it is likely to range from minor significance at Hale Bank to no significance at all other receptors.</p>	●	●
<b>Socio-economic Issues</b>	The site and immediate surroundings are industrial in nature but there are residential communities on the periphery of these and within the main urban areas of Widnes. The economic health of local industry and commerce has a direct influence on	<p>The construction phase will provide limited temporary job opportunities associated with the site clearance and building works.</p> <p>Under the operational phase the development is assessed to provide over 1500 in total (including drivers and indirect employment in the</p>	●	● ● ●

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	<p>local employment opportunities and unemployment levels. There have been periods of economic decline in past decades but some investment and job creation is evident in the local area.</p> <p>The current site operations provide some employment but the levels are relatively low compared to the size and potential of the site.</p>	<p>local area).</p>		
<b>Soils, Geology &amp; Contamination</b>	<p>A comprehensive site investigation undertaken for this planning application has shown that there is a substantial presence of galligu in the central and eastern areas of the site (underlain in places by gas works/phenolic hydrocarbon wastes). There are also isolated incidences of elevated metals and metalloid species and petroleum hydrocarbons. The groundwater beneath the site also appears to have been impacted to varying degrees.</p>	<p>The nature and level of contaminants identified at the site are not considered to pose a significant risk to current occupants, however further quantitative risk assessment for those parameters that have exceeded the preliminary screening values will be required. The hot spots of soil contamination identified represent an ongoing source of groundwater contamination however, this will be significantly reduced as a direct result of the proposed redevelopment, as the majority of the site will become hardstanding with small pockets of drained landscaped areas (which may also prevent infiltration into contaminated soils) and Steward's Brook will be directed to a new lined channel.</p> <p>A comprehensive Remediation Strategy will be developed and agreed with the relevant authorities comprising the required actions necessary to reduce the levels of risk from the identified sources of contamination at the site. This will need to include site derived target concentrations, method statements, testing strategy and overall programme outline. Following any remediation works at the site, a Post Completion Report will need to be completed to demonstrate the remediation works undertaken and identification of any post remedial actions necessary.</p> <p>Following the identified remedial works, the site will be under predominantly hardstanding and the contaminants identified contained within the site. Therefore the risks to human health, controlled waters, land and ecology will be reduced to a sufficient degree following development and remediation.</p>	● ●	● ● ●
<b>Sustainability</b>	<p>The current use of the site does not accord with sustainability principles as it comprises ad-hoc development implemented over a number of years and associated ad-hoc construction materials, transport arrangements and wastes management. Also many areas of the site are unused or poorly utilised when they could be made inclusive to an economically viable and productive use of a large brownfield site.</p>	<p>The new buildings will achieve good standards of environmental design as part of a sustainability agenda for the whole of the site. The design of individual buildings is respectful of orientation, materials specification and energy management strategy, so as to demonstrate responsible environmental design principles.</p> <p>As part of the Tenants Environmental Charter, companies will be encouraged to follow the waste hierarchy, aimed at reducing landfill disposal as much as possible with this being the final option in the event of no other reasonable solution being available. Furthermore the Tenants Charter will actively encourage the use of sustainable travel as identified in the Green Travel Plan.</p>	●	● ●
<b>Traffic and Transport</b>	<p>The site is accessed via a number of private roads. All of these private roads are currently accessed via the roundabout junction at Desoto Road/MacDermott Road and are in generally a poor condition. MacDermott Road and Desotto Road links the private industrial roads to the local and strategic road network. These roads are generally in poor condition.</p>	<p>The traffic generated by the proposal can be accommodated by the existing road network without any need for off site improvements.</p> <p>The need to bring aggregates and fill materials on to the site during the construction phase will involve a greater volume of intensive traffic but this will be temporary in nature.</p>	●	●

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	<p>Access to the motorway network is via the A562 Queensway and A5300 to junction 6 of the M62 (to the northwest) or the A557 and Junction 7 of the M62 (to the northeast). These roads have been subject to recent improvements and are generally in a good condition.</p> <p>Parking is available at the site for both cars and HGVs.</p> <p>Currently there is one railway line onto the site, which is used for periodic freight movements with the majority of freight accessing and leaving the site via HGVs. Site personnel generally access the site in private vehicles.</p>	<p>The proposal will provide a contribution towards a package of measures to improve the accessibility of the site to non private car borne modes of travel and the occupants will be expected to adopt an agreed travel plan and crucially will optimise the use of road and rail for freight logistics bringing about improved efficiencies.</p> <p>The proposal therefore complies with government and UDP policy.</p> <p>Whilst overall there will be a net increase in traffic, the proposals provide for a more efficient freight handling regionally and a comprehensive green travel plan that does not exist currently.</p>		
<b>Water quality and Hydrology</b>	<p>According to the Environment Agency, part of the site lies within the fluvial tidal flood plain and notionally there is a potential flood risk, but the EA have installed flood defences over the years and flooding is considered unlikely to occur. The Ditton Brook runs along the western boundary of the Foundry Lane site and is tidal along this reach where it runs in a 20m wide channel. Steward's Brook runs along the southern boundary of the Reclamation site and is controlled by a tidal flap upgradient of the site. This brook also runs adjacent to the western boundary of West Bank Dock site. A small channel, the Marsh Brook, runs along the eastern margin of the West Bank Dock site to the east of Desoto Road. All three watercourses discharge into the River Mersey. The watercourses and groundwater that feeds them are contaminated mainly from galligu which is widespread in the area but also from other local chemical waste leachates and general industrial pollution loading.</p> <p>It is unlikely that the surface waters on the site are capable of providing substantive habitats.</p> <p>Large parts of the site are unsurfaced and are likely to allow the infiltration of rainwater through contaminated soils and allow leaching of contaminants to the groundwater horizons within the site, some of which are in continuity with the brooks.</p>	<p>The flood defences have been assessed with respect to the predicted 200 year return period tidal flooding level but this does not take account of flood defences which provide the site with substantial protection. The proposed development will increase site levels and none of the new development should be in a flood risk zone.</p> <p>There are no suitable SUDS techniques for this site as the use of infiltration trenches, french drains or permeable pavements are impractical due to contaminated ground beneath the site and potential mobilisation of contaminants. There is insufficient land space for ponds, basins or wetlands. However, as the site is close to the River Mersey it is considered that the additional storm runoff would not increase flooding problems to other adjacent sites and there is an environmental benefit in reducing infiltration and releasing sub surface contaminants to the aquatic environment.</p> <p>The increased impermeable nature of the ground cover after development will reduce infiltration and will therefore serve to minimise mobilisation of any sub-surface contaminants and pollution of nearby watercourses.</p> <p>The development will also involve the diversion of Steward's Brook and the substantial improvement of the Marsh Brook it will be connected with. This will mean that there will be no further polluting inputs to the brook from the site.</p>	●	● ●
<b>Waste Management</b>	<p>Current wastes generally comprise non-hazardous wastes such as cardboard, plastics paper and wood. Waste management is ad-hoc and tenants are generally responsible for managing their own wastes.</p> <p>The level of recycling and recovery is not known, but the mixed nature of wastes in the skips would suggest that it is not very high.</p>	<p>During the construction phase there will be significant quantities of contaminated soils (mainly galligu) that will be managed by blending with special cement products that will enable the material to become a resource (fill material). Small amount of highly contaminated waste only are predicted and this will require specialist off-site disposal.</p> <p>Once operational the tenants will be obligated under the packaging waste regulations and have centralised corporate waste management contracts for a significant proportion of their wastes.</p>	● ●	● ●

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		There will be an environmental management section to the Tenant's handbook that will set minimum good practice standards for waste management and pollution prevention across the site.		
●/● Minor   ●●/●● Moderate   ●●●/●●● Major   ● No Impact <span style="color: red;">negative</span> / <span style="color: green;">positive</span>				