

# Sainsbury's Supermarkets Ltd Churnet Works, Leek Mixed Use Redevelopment



## Environmental Statement Volume 3: Non Technical Summary January 2010

Co-ordinated by Turley Associates

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# 1. Introduction

1.1 This Environmental Statement (ES) is submitted to Staffordshire Moorlands District Council (SMDC) as part of a hybrid application by Sainsbury's Supermarkets Ltd ('the Applicant') for a major mixed-use development of a site known as 'Churnet Works', Macclesfield Road, Leek (the 'Site').

1.2 The planning application is submitted in the form of a hybrid planning application. An illustrative masterplan has been submitted which demonstrates the aspirations for the Application Site. The description of development is as follows:

*"Retail (Class A1), Employment (flexible uses between Classes B1, B2 and B8), Petrol filling station (sui generis), and Residential (Class C3) with associated car parking, access, highway, landscaping and other works, and public open space."*

1.3 The purpose of the scheme is to provide a development which will secure the comprehensive regeneration of this underutilised, brownfield site. The proposal will also enable SMDC to meet its redevelopment objective for the Site, as detailed in the Submission Core Strategy Development Plan Document (DPD).

1.4 This document provides a Non-Technical Summary of the main ES (Volume 1) and Technical Appendices (Volume 2). For a further detailed review of the Proposed Development's environmental effects, regard should be had to Volumes 1 and 2.

## 2. Assessment Methodology

- 2.1 The ES has been prepared pursuant to The Town and Country Planning (Environmental Impact Assessment) (Amendment) (England & Wales) Regulations 1999 as amended (included most recently by 2008 Amended Regulations) ('the Regulations'); and having regard to advice in DETR and DoE Good Practice Guidance on the Preparation of Environmental Statements (1995).
- 2.2 The ES has had regard to all aspects of the environment likely to be affected by Proposed Development and includes an assessment of the extent and significance of the potential environmental effects.
- 2.3 The process is based on consideration of the character, duration and importance of effects; the environmental sensitivity of the Proposed Development; and any quantifiable criteria set out in Government Regulations and policy guidelines. Where quantifiable criteria are not available, expert judgement is applied.
- 2.4 In order to carry out an assessment of the likely environmental effects of the Proposed Development, the existing conditions must first be defined. The likely extent of environmental effects and their significance can then be assessed. As a starting point, this ES adopts the baseline position as being the existing site conditions. The environmental effects to be assessed are therefore the differences in effects between the existing Application Site conditions and the Proposed Development.
- 2.5 Where the assessment procedure indicates that the Proposed Development is likely to have significant adverse effects, the ES identifies appropriate mitigation measures to reduce, compensate or eliminate these effects and/or take advantage of opportunities for environmental enhancement. Such mitigation measures can either be incorporated into the proposed design and operation of the Proposed Development, or through the introduction of particular safeguards.
- 2.6 The effect criteria used throughout the chapters, with the exception of Chapters 9, 10 and 12, is outlined in **Table 2.1** overleaf. The criteria used in Chapters 9, 10 and 12 is similar but more specific to each discipline.

**Table 2.1: Criteria for Determining the Significance of the Environmental Effect**

<b>Magnitude</b>	<b>Criteria</b>
Substantial Adverse	The development (either on its own or with other proposals) could have a substantial adverse effect on the character and integrity of the site and/or the surrounding area.
Moderate Adverse	The development (either on its own or with other proposals) could have a moderate adverse effect on the character and integrity of the site and/or the surrounding area.
Minor Adverse	The development (either on its own or with other proposals) could have a minor adverse effect on the character and integrity of the site and/or the surrounding area.
Negligible	No observable effect.
Minor Beneficial	The development (either on its own or with other proposals) could have a minor beneficial effect on the character and integrity of the site and/or the surrounding area.
Moderate Beneficial	The development (either on its own or with other proposals) could have a moderate beneficial effect on the character and integrity of the site and/or the surrounding area.
Substantial Beneficial	The development (either on its own or with other proposals) could have a substantial beneficial effect on the character and integrity of the site and/or the surrounding area.

### **3. Site and Surrounding Area**

#### **The Application Site**

- 3.1 The site is bounded by the River Churnet and Abbey Green Road to the east, Macclesfield Road and Mill Street to the south, and the River Churnet overflow channel to the west and north.
- 3.2 The site area extends to some 9.8 hectares and can be divided into three different elements: 1) buildings to the south of the River Churnet; 2) buildings to the north of the River Churnet; and 3) land to the north east of the 'Works'. The ground levels across the site are relatively flat.

#### ***Buildings South of the River Churnet***

- 3.3 A variety of building types are located on this part of the Site, bounded by a Tessenderlo chemical plant to the west, Churnet Works to the north, the former Mill to the east and Macclesfield Road to the south. These groups of buildings are used primarily for industrial/warehouse purposes.

#### ***Buildings North of River Churnet***

- 3.4 This section of the Site consists of a row of three large industrial/warehouse buildings located adjacent to each other. These units are bounded by the River Churnet to the south, the chemical plant to the west, the area of overgrown private open space (comprising grass and shrubs) to the north and the river Churnet to the east.

#### ***Land to the North East of the Site***

- 3.5 To the north east, the remainder of the Site is an area of overgrown grass and shrubs which extends to about 3.01 hectares. The area is triangular in shape, and is bounded by the River Churnet to south east and a small terrace of houses immediately to the east. The overflow channel bounds the Site to the north and the industrial units bound the Site to the south west.

#### **The Surrounding Area**

#### ***Abbey Green Road***

- 3.6 The eastern boundary of the Site is defined by the River Churnet and Abbey Green Road. The access bridge to the large industrial buildings north of the River Churnet, is taken from Abbey Green Road. To the north of Abbey Green Road is the Grade II Listed Broads Bridge. Industrial works premises are located along Abbey Green Road adjacent to the Site and further north at Broads Bridge. Residential dwellings and lock

up garages are also located to the south of Abbey Green Road. There is a small terrace of houses after Broads Bridge which sits opposite a man made weir, which feeds into the overflow channel which runs back under Abbey Green Road.

***Macclesfield Road/Mill Street***

- 3.7 To the south of the Site are Macclesfield Road and Mill Street which incorporate a variety of uses and buildings including the Supersport Ltd warehouse; the former Brindley's Corn Mill, which is Grade II Listed and a Scheduled Ancient Monument and now converted to a museum; and the Leek Conservative Working Mens Club, which is also Grade II Listed.
- 3.8 Opposite the Site and the cluster of listed buildings is the St John the Evangelist Mission Church. Moving westwards there are a number of commercial uses including a vacant works/office unit, public houses and a retail warehouse unit. Further west are residential properties and the Leek Town Football Club ground, as well as another public house, petrol filling station and retail unit.

## 4. Description of Development

- 4.1 The planning application proposes a major mixed-use development of the Application Site. The planning application is submitted in the form of a hybrid planning application. An illustrative masterplan has been submitted which demonstrates the aspirations for the Application Site.
- 4.2 The application is in hybrid form because the details of the retail, petrol filling station and employment units are known from the outset, including the accommodation for Sainsbury's itself and the existing site's relocated employment occupiers. These land uses are therefore submitted in full as part of the detailed planning application, the description of development of which is as follows:

*"Retail (Class A1), Employment (flexible uses between Classes B1, B2 and B8), Petrol filling station (sui generis), and Residential (Class C3) with associated car parking, access, highway, landscaping and other works, and public open space."*

- 4.3 The details of the residential units are to be finalised once a development partner has been selected and this element therefore submitted in outline form, with only access submitted for approval. All other matters save for access are reserved for detailed approval namely layout, scale, appearance and landscaping.

### Land Use

- 4.4 The main land use elements of the Proposed Development are outlined overleaf in **Table 4.1**.



**Table 4.1 Proposed Scheme Land Use/Floorspace Schedule**

Land Use	Floorspace (sq m)
Retail (A1)	Supermarket: <ul style="list-style-type: none"> <li>• 3,716 sq m (net sales)</li> <li>• 6,834 sq m (GEA)</li> </ul>
	Bulky goods retail: <ul style="list-style-type: none"> <li>• 2,875 sq m (gross)</li> </ul>
Employment (B1, B2, B8)	5,954 sq m (GEA)
Residential (C3)	95 units / 8,773 sq m GEA (indicative)
Petrol filling station	75
<b>Total Floorspace</b>	<b>24,511</b>
Public open space	3.80 acres/1.54ha
Car parking	694 spaces in total, comprising: <ul style="list-style-type: none"> <li>• Retail – 529</li> <li>• Employment – 68</li> <li>• Residential – 97 (indicative)</li> </ul>

## **5. Need for Development and Alternatives**

### **Site Selection**

- 5.1 The Site has been selected for the Proposed Development as it provides a suitable opportunity to regenerate an area of poor environmental quality and achieve a mix of uses and infrastructure improvements which will benefit this part of Leek.
- 5.2 The Site is promoted through SMDC's emerging LDF as a 'major regeneration mixed use opportunity' suitable for retail, employment, residential and leisure. Accordingly no alternative site was considered for the employment, residential and public open space elements of the Proposed Development.
- 5.3 The provision of retail uses within the Proposed Development needs to accord with the tests set out in Planning Policy Statement (PPS) 4 and Draft Core Strategy Policy TCR2 (Retailing Outside Town Centres). In accordance with the requirements of PPS4 alternative sites were considered for the retail elements (See Turley Associates' Planning and Retail Assessment).
- 5.4 On the basis of the sequential assessment, it is concluded that there are no opportunities within or adjacent to Leek town centre, that are likely to come forward within a reasonable period of time, which would be suitable or available for the retail elements of the Proposed Development.

### **Potential Alternatives**

- 5.5 There are three main scenarios which Sainsbury's has considered as potential alternatives to the Proposed Development:
  - i) The Core Strategy Submission Scenario;
  - ii) The Masterplan Scenario, as submitted; and
  - iii) An alternative site.

### ***Core Strategy Submission/Masterplan Scenario***

- 5.6 An alternative to the Proposed Development is developing a scheme that accords with the Core Strategy designation but comprises an alternative mix/quantum of floorspace/units.
- 5.7 Sainsbury's initially explored the potential land use mix options. The inclusion of a supermarket on the Application Site is critical to the delivery of the development as well as retaining the retail floorspace opportunities within the constrained town centre. The Site has significant constraints, including wide-scale site clearance and remediation, and flood risk attenuation and the supermarket is the essential element which makes

the development viable. Without the supermarket Sainsbury's would not be able to deliver a mixed use scheme on the Site.

- 5.8 The level of employment floorspace could be increased or decreased. However further to detailed discussions with all existing employment tenants on site and general marketing exercises, a need for 5,954 sq m has been identified.
- 5.9 In terms of residential, again the level of provision could be increased or decreased and the type and mix of tenure could be varied. Illustrative material is submitted for a 95 units scheme – 34 houses and 61 apartments. There is a requirement to provide family housing in Leek and a greater proportion of this type of housing, however, this approach does not lend itself to maximising the efficiency of the Site taking into account its constraints such as flood risk, creating a 'gateway' to the Site, or providing for an appropriate mix of accommodation.
- 5.10 The leisure provision could be provided in the form of commercial leisure. However it was considered more appropriate to retain and improve the significant level of open space as a form of informal leisure available to all members of the public. In addition, the Site is within a floodplain and the retention of the area as an undeveloped site forms part of a critical role in the Site's flood risk strategy.
- 5.11 The differences in environmental effects between the Core Strategy aspirations and the Proposed Development are not significant due to the significant site constraints and consequent similarities in terms of land use and built form. If there is a variation, then the environmental effects could be significant if the alternative development comprises built development in the main flood area to the north of the site and/or comprises buildings of an increased height.

### ***An Alternative Site***

- 5.12 The mix of uses and suitability of the Proposed Development have been thoroughly assessed through a sequential analysis of alternative sites to accommodate the proposal within the emerging Leek Town Centre Draft Masterplan. Our detailed assessment of these sites is contained in **Appendix 5.1** (Volume 1).
- 5.13 There are no suitable or available sites in or on the edge of Leek town centre.
- 5.14 We therefore conclude that the Application Site represents the most sequentially preferable location to accommodate the Proposed Development.

### **Summary**

- 5.15 It is concluded that the selection of the Application Site is appropriate and there are no other alternatives, based on a balanced assessment of the environmental effects of the Proposed Development and consideration of the cumulative effects.

## **6. Planning Policy Context**

6.1 The following sources of planning policy are of relevance to this ES.

### **Government Guidance**

- Planning Policy Statement 1 (PPS1): Creating Sustainable Communities (February 2005);
- Planning Policy Statement 3 (PPS3): Housing (November 2006);
- Planning Policy Statement 4 (PPS4): Planning for Sustainable Economic Growth (December 2009);
- Planning Policy Statement 9 (PPS9): Biodiversity and Geological Conservation (August 2005);
- Planning Policy Guidance 13 (PPG13): Transport (March 2001);
- Planning Policy Guidance 15 (PPG15): Planning and the Historic Environment (September 1994);
- Draft Planning Policy Statement 15 (PPS15): Planning for the Historic Environment;
- Planning Policy Guidance Note 16 (PPG16): Archaeology and Planning (November 1990);
- Planning Policy Guidance 17 (PPG17): Planning for Open Space, Sport and Recreation (July 2002);
- Planning Policy Statement 23 (PPS23): Planning and Pollution Control (November 2004);
- Planning Policy Guidance 24 (PPG24): Planning and Noise (September 2004); and
- Planning Policy Statement 25 (PPS25): Development and Flood Risk (December 2006).

### **The Development Plan**

- Regional Spatial Strategy (RSS) for the West Midlands (January 2008);
- Staffordshire and Stoke-on-Trent Structure Plan 1996-2011 (May 2001) – saved policies; and
- Staffordshire Moorlands District Local Plan (September 1998).

### ***Emerging Development Plan Documents***

- Core Strategy: Submission Development Plan Document (DPD) (May 2009); and
- Core Strategy: Submission DPD Addendum (December 2009).

### ***Supplementary Guidance***

- Draft Leek Town Centre Masterplan (December 2009);
- Staffordshire Moorlands Retail Study (November 2006);
- Public Open Space Supplementary Planning Guidance (SPG) (November 2004);
- PPG17 Audit – Open Space, Sport and Recreation Audit (March 2008); and
- Developer/Landowner Contributions SPG (February 2005).

6.2 The Proposed Development has been formulated and developed in line with the statutory and emerging policy guidance at the national, strategic and local level and as such, we believe, accords with its requirements.

## 7. Socio-economic Effects

- 7.1 The socio-economic effects of the Proposed Development upon the Application Site and the surrounding area have been assessed.
- 7.2 The following matters have been considered in identifying the likely effects of the Proposed Development on human beings living and/or working and/or visiting the Site and the area, or in close proximity to it:
- population including the effect on housing, health, education, community facilities and open space provision;
  - economy including the effect on employment generation and the local economy;
  - retail including the effect on retail expenditure and Leek town centre; and
  - effects of demolition and construction works.
- 7.3 Throughout the demotion and construction period it is estimated that there will be approximately 100-150 full time equivalent jobs created during this period. This additional number of jobs will have a **temporary, short to medium term moderate beneficial** effect upon socio-economic factors.
- 7.4 On completion of the Proposed Development, a range of potential socio-economic effects are expected are now summarised.

### Population

- 7.5 With the provision of an additional 95 residential units there would be a total increase in population of approximately 190 persons. This would result in increased spending potential in Leek town centre; increased pressure on existing services; and increased activity in this part of Leek.
- 7.6 These effects are considered to be **long term, local minor beneficial**.

### Housing

- 7.7 The increase in housing will contribute towards the total of residential accommodation and will provide better quality housing in a sustainable location. The provision of on-site affordable housing accommodation will contribute towards the lack of stock in the town.
- 7.8 The proposed housing benefits the vitality of the scheme by providing a residential population that will make use of the proposed facilities as well as using the existing facilities in the town. These effects are considered to be **long term, local minor beneficial**.

### **Education Facilities**

- 7.9 It is likely the number of school-age children generated by the Proposed Development will be minimal due to type and size of housing proposed. The effect on educational facilities would be **long term, local minor adverse**.

### **Health Facilities**

- 7.10 The introduction of a total scheme population of approximately 190 persons will increase demands on the health services. This would equate to an average of 7 additional patients on average for each of the 27 GPs albeit that not all persons living on site would be new to the Leek area. The effect on health facilities would be **long term, local minor adverse**.

### **Employment and Job Creation**

- 7.11 The approximate 624-674 jobs created by the Proposed Development would both directly and indirectly enhance incomes in the area to the benefit of local residents and the wider community. Increased income would lead to multiplier effects for the town's shops, businesses and services, further promoted by the proposed shuttle bus service linking the site with the town centre. The effect of the increase in employment will be **long term, local substantial beneficial**.

### **Retail Provision**

- 7.12 In general the Proposed Development is expected to increase the retail turnover of the town, enhance the environmental quality and attraction of the area and make a significant contribution to the town centre's vitality and viability. The proposed offer would complement the existing town's offer and ensure no harmful effects on the trading conditions and vitality and viability of the other parts of the town centre. The effects of the Proposed Development on the retail element of the economy will be **long term, local moderate beneficial**.

### **Accessibility and Social Inclusivity**

- 7.13 The Proposed Development will be accessible and inclusive to all elements of the local population who will be able to use the retail facilities; access employment; enjoy a new area of significant public open space; the town's built heritage assets will be enhanced through improvement to its setting and public accessibility; and improved public transport linkages with the town centre. The potential effects upon accessibility and social inclusion will be **long-term, local moderate beneficial**.
- 7.14 Overall it is concluded that the Proposed Development will have a **moderate beneficial** effect.

## **8. Transportation and Accessibility**

- 8.1 The initial pre-application consultation was carried out with SCC in February 2009 to agree the scope of the Transport Assessment. This was followed with a meeting in September 2009 with both SCC and SMDC officers to discuss the transport aspects in more detail and to ensure that the traffic and environmental requirements were consistent. Additional consultation with SCC and SMDC has been carried out during subsequent meetings and telephone conversations.
- 8.2 An assessment of the transport implications of the Proposed Development has been undertaken. This has included:
- review of the existing site and its surroundings;
  - review of the accessibility of the Site by all modes of transport;
  - assessment of the likely traffic generation and distribution;
  - assessment of traffic effects on the surrounding highway network;
  - assessment of the car parking and servicing strategy at the site; and
  - assessment of safety issues on the highway network.
- 8.3 Traffic surveys were carried out to derive the baseline data for the relevant junctions in the study area. These included:
- A520 St Edward Street / Compton / A53 Brook Street / Broad Street;
  - A523 Stockwell Street / Buxton Road / A53 Ball Haye Street;
  - A523 Church Street / A520 St Edward Street; and
  - Proposed Site Access / A523 Macclesfield Road.
- 8.4 The ES chapter summarises the baseline situation at the Application Site on the surrounding highway network, detailing the traffic on the network, cycling and pedestrian infrastructure and public transport currently servicing the Site. The baseline conditions have been established using site visits and studies of the existing pedestrian and cycle infrastructure and facilities in proximity to the Site. Traffic surveys were carried out to derive the baseline traffic flow data for the key junctions in proximity to the Site. The traffic data collected from these surveys together with geometric data from site visits and desk-top studies as well as operational data for signal-controlled junctions provided by SCC were used to build computer models that represent how each junction operates during the busiest peak hour periods. In order to establish whether there are any inherent safety issues on the highway network in the vicinity of the Site, Personal Injury Collision Data (PIC) for the most recent five-year period was been obtained and analysed.



- 8.5 The additional demolition and construction traffic could have an effect on sensitive junctions in proximity to the Site if their schedule and route is not appropriately considered. Whilst this stage is predicted to last around a year, the additional associated traffic would be spread out and rarely occur during the peak periods, and as such the potential effect is rated as Minor Adverse.
- 8.6 If sufficient pedestrian and cycling facilities were not provided then it would create a long-term increase in additional conflicts between vehicles, cyclists and pedestrians; and could lead to visitors being discouraged from travelling by these modes, and inevitably result in a long-term increase in vehicular trips. The potential effect is therefore rated as Minor Adverse.
- 8.7 The Proposed Development would create a higher number of service vehicles that serve the Site and travel along the local highway network. Whilst it is anticipated that the number of service vehicles would not be sufficient enough to create a significant effect on the network, there is the potential for sporadic minor issues to occur if the schedules are not managed appropriately, and therefore any potential effect is classed as Negligible.
- 8.8 The traffic generation associated with the Proposed Development has been derived using the standard industry method of comparing similar developments in similar locations on order to predict the traffic attractions to and from the proposed development throughout the day. This traffic is then distributed throughout the local highway network in relation to the appropriate origin and destinations, and therefore derives the additional traffic movements at each of the junctions considered within the scope. Whilst the majority of the junctions are demonstrated to be capable of accommodating the traffic associated with the Proposed Development the A50/A53 and A523/A520 would experience resultant congestion and associated delays if no junction improvements were made. Due to the foreseen restrictions in providing improvements to the junctions, particularly due to the lack of available road space, the potential effect without mitigation is therefore rated as Moderate Adverse.
- 8.9 The ES chapter details the mitigation measures proposed to counter the aforementioned effects. Prior to the commencement of demolition, it is anticipated that a detailed demolition and construction programme will be prepared and this would include a management plan that would ensure the construction traffic only uses suitable routes and junctions at suitable time to access the site. As a result the effect of demolition and construction traffic is minimised and the residual effect is therefore classed as **Negligible**.
- 8.10 The existing bridge across the River Churnet, which is accessed via Abbey Green Road, will serve as the main pedestrian and cycle access into the site. The bridge utilises its strategic location on the local cycle route network as well as the anticipated pedestrian desire line from the town centre to provide a convenient route into the development from the surrounding residential areas and the town centre. This strategic

access together with a proposed controlled pedestrian crossing on Macclesfield Road will offer an improved pedestrian and cycle friendly environment and the residual effect for both issues is therefore classed as **Minor Beneficial**.

- 8.11 A key part of the Proposed Development is the introduction of a new shuttle bus service that will further enhance the links between the development, town centre and surrounding residential areas. The proposed Travel Plan for the development will actively encourage visitors to the development to travel by sustainable modes of transport, and will promote the benefits of doing so as well as offering incentives where appropriate.
- 8.12 The proposed main vehicular access is in the form of a three-arm roundabout junction on Macclesfield Road that provides the most appropriate form of junction to ensure that traffic along Macclesfield Road continues to travel freely. As there is limited potential at all three existing junctions for improvements to be made, it is beyond the control of the developer to resolve the resultant issues. However, SCC is in the process of developing a Draft Transport Strategy for Leek that, instead of looking for developers to resolve local transport issues separately, will seek financial contribution towards an area-wide improvement that will be presented in the forthcoming strategy. It is considered that the contribution strategy would lead to improved transport networks in Leek and thus the residual effect is classed as **Moderate Beneficial**.
- 8.13 It is concluded that although the site is accessible to the town centre and surrounding residential areas by sustainable modes of transport, the proposed improvements will enhance these links and thus promote sustainable travel even further.
- 8.14 Two key measures of the proposals are designed to maximise travel to the development by sustainable modes of transport. The first is a strategic pedestrian/cycle route into the Site utilising the existing access of Abbey Green Road, and this links into the existing pedestrian and cycle infrastructure in the vicinity, including a new controlled pedestrian crossing of Macclesfield Road. The second key measure is the proposed shuttle bus service that links the development with the town centre and surrounding residential areas. These two measures will serve to provide genuine sustainable links with the surrounding area and improve links with the town centre.
- 8.15 It is further concluded that although the additional traffic associated with the Proposed Development is likely to have an effect on certain junctions in the town centre, the proposed off-site highway improvements and the strategy put forward to contribute towards the forthcoming Draft Transport Strategy for Leek are appropriate mitigation measures, and as such the proposed development will help to provide benefits to the transport networks within Leek.

## 9. Ecology

- 9.1 A range of ecological surveys were carried out on the Site. These surveys followed the relevant best practise guidelines specific to each survey. Background data searches were carried out in order to identify protected sites and species records within and in the vicinity of the Application Site. Surveys to assess the habitats present on site included Phase 1, River Corridor and Hedgerow surveys. Protected species surveys included badgers, bats, breeding birds, reptiles, otters and water voles.
- 9.2 The Phase 1 habitat survey identified that the majority of the Application Site is currently occupied by buildings and hardstanding in the form of the existing employment area. The northern section of the Application Site is a semi-improved grassland field with tall ruderal vegetation in places. Three distinct hedgerows were identified, none of which are classified as 'Important' under the Hedgerow Regulations. Areas of scrub, both native and ornamental, were also identified.
- 9.3 The River Churnet habitat varies. Where the river runs adjacent to the Application Site, the corridor is tree-lined providing an important habitat and green connection. Where the river runs through the existing Employment Area, bank-side vegetation is largely absent, due to the brick wall and concrete banks present in this section. The overflow channel was recorded running along the northern and western boundary of the Application Site provides an important habitat and green connection with a range of bank side and aquatic vegetation recorded. Several mature trees were identified on Site, mainly associated with the hedgerows as standards, or forming the tree-lined corridor of the River Churnet.
- 9.4 Evidence was recorded to indicate that badgers were using the semi-improved grassland field for foraging and commuting with foraging signs, trails and latrine sites recorded. There was no evidence of badger setts recorded on the Application Site at the time of survey.
- 9.5 Internal and external inspections were carried out on all buildings present on the Application Site, in order to assess their suitability to provide roosting habitat for bats. No evidence of bat roosts, such as droppings, fur rubbing or staining, was recorded during the surveys. Numerous discreet locations within the building complex, such as beneath roof tiles and behind wooden cladding, have the potential to provide roosting habitat for use by small numbers of bats on a transient basis. There is a negligible possibility that buildings on the Application Site provide suitable habitat for maternity or hibernation roosts. Bat activity surveys were carried out over a series of nights. No evidence of emergence from or re-entry to roosts was recorded on site. A total of four species of bat, including two pipistrelle species, Daubentons' and noctules were recorded foraging and commuting within the Application Site during the activity surveys.
- 9.6 The Breeding bird surveys recorded a total of 24 species were recorded, including four UK BAP species, three species of Red List conservation concern and six species of

Amber List conservation concern. A number of these species are thought to be breeding on site, with features including trees, hedgerows, scrub and buildings likely to provide suitable nesting habitat. No birds recorded on site receive protection which may pose a constraint to development outside of the breeding season.

- 9.7 A breeding population of grass snakes was identified. They were present in an area of developing scrub and grassland habitat within the existing employment area. No other reptiles were identified on site.
- 9.8 Background data records indicate the presence of otters on the River Churnet in close proximity to the Application Site. No evidence of otters was recorded during the surveys and an assessment of habitat suitability concluded that use of the stretch of the river which runs through and adjacent to the Application Site is likely to be limited to transient hunting and commuting.
- 9.9 Background data records indicate the presence of water voles on the section of the River Churnet where it runs adjacent to the Application Site. Evidence indicated the presence of old holes which did not appear to be occupied at the time of survey. However, it is likely that a recent pollution incident in Tittesworth in 2008 affected the local water vole populations. The habitat was found to be suitable, supported by the historical records of occupancy, and it is considered likely that new populations of water voles may colonise this stretch of river.
- 9.10 A range of mitigation measures, including avoidance, protection and enhancement, have been built into the development proposals.
- 9.11 Avoidance measures include:
- Timing of works so that vegetation clearance is undertaken outside of the bird nesting season, where possible.
  - Timing of works to ensure that effects to any itinerant bats using discreet roosting features in the buildings are minimised and that no potential maternity roosts are disturbed.
  - The creation of appropriate badger access points within permanent fencing, to ensure that access by the local badger population to foraging habitat is not effected in the long term.
  - Design of bridges to ensure that access is maintained, even during flood periods, to ensure that species including otter and water vole would not resort to crossing the new access roads.
- 9.12 Protective measures include:
- The erection of Heras fencing around all retained features of ecological interest, including the River Churnet, the overflow channel to the north of the

Site, hedgerows and mature trees, to ensure that they are not effected by construction activities.

- The translocation of the breeding population of grass snakes to specifically designed receptor habitat away from construction activities on site.
- Supervision by a licensed ecologist of the removal of tiles and wooden cladding from the buildings present on site, in order to ensure that any bats encountered are not harmed.

9.13 Enhancement measures include:

- Creation of a Public Open Space to the north of the Site to include grassland, tree and scrub habitat maintained under an appropriate management regime.
- Creation of reptile refugia and hibernacula within the Public Open Space to provide a suitable receptor habitat for the translocated grass snake population.
- Regrading of the banks to remove concrete and brick walls where the River Churnet runs through the existing employment area, to be replaced with gently sloping vegetated banks.
- Planting of tree, shrub and herbaceous species within the landscaping of the new development which are native or provide benefit to wildlife including nesting and foraging birds.
- Creation of new bat roosting habitat and bird nesting habitat within the Application Site through the erection of bat and bird boxes, and the incorporation of bat bricks and bird nesting ledges into appropriate buildings on site.

9.14 With the implementation of the mitigation measures, the residual effects on protected species and features of ecological interest during both the demolition and construction phase and the operational phase would be negligible with the exception of water voles and otters which would experience a **minor beneficial** effect in the long-term.

## 10. Landscape and Visual Effects

- 10.1 The Site is visible from a large number of sensitive visual receptors including a large number of residential properties, two Scheduled Ancient Monuments and numerous listed buildings; and other locally recorded monuments. It is also visible from several areas of statutorily protected high quality landscape. It spans the flood plain of the fast flowing River Churnet, between steep valley sides.
- 10.2 The Site is however already industrialised and has become run down and, in parts, a blight on the landscape.
- 10.3 Although slightly expanding the urban area of the town through conversion of land formerly used on occasion for informal recreation into car parking, the Proposed Development confines itself largely to the redevelopment of degraded and under performing industrial land, to provide high quality mixed use development that will raise the general quality of townscape in this important gateway area of Leek. It will improve the ecology, appearance and water quality within the river corridor, and increase local public open space provision in an area short of such amenities.
- 10.4 Overall, the landscape and visual effect significance is judged to be **moderate beneficial**.

## 11. Archaeology

- 11.1 Very little evidence of prehistoric activity has been found in the area of the Application Site. A small number of late prehistoric artefacts, including a Bronze Age barbed flint arrowhead and a bronze axe or hammer head and Neolithic or Bronze Age leaf-shaped flint arrowhead have been found approximately 500m of the Site. A Bronze Age barrow approximately 500m to the north was excavated in the early 19th century. It was known as Cock Low, and stood somewhere between Waterloo Street and Spring Gardens.
- 11.2 There is also very little evidence for any Roman activity in the area. The only recorded find from the area is a coin hoard, found in the late 18th century about 3km south of the town.
- 11.3 Documentary evidence points to settlement established at Leek by the 11<sup>th</sup> century. The manor of *Lec* probably included the town and the neighbouring townships of Tittesworth, Bradnop, Onecote and Leekfrith. The Abbey of Dieulacres or Dieu la Cresse was established to the north of the town before 1214, when Earl Ranulph III (6<sup>th</sup> Earl of Chester) granted it corn mills in Leek and Hulme. The monks of this Cistercian Order moved here from Poulton Abbey, in Cheshire. They maintained two mills through the medieval period, the exact location of which are unknown, although two were recorded in 1538-40 off Mill Street.
- 11.4 The making of moulded buttons covered with cloth operated as a cottage industry in the town from the late medieval period until the 18<sup>th</sup> Century when metal buttons from Birmingham captured the market. The association with silk-weaving is first documented in the 1670s, when the craft is thought to have been introduced from Macclesfield. By the beginning of the 19<sup>th</sup> century there were 36 mills in the town many of which were in the vicinity of the Application Site.
- 11.5 The Application Site is crossed by the River Churnet which has been used, and its course modified for agricultural and industrial purposes, since the medieval period. In the 1740s, the river's course was manipulated to provide power to the corn mill built by the prominent canal engineer, James Brindley. A leat of probable post-medieval date bounds the site to the west and is considered to be of importance to the town's industrial history. At the south east entrance to the Churnet employment area a stone footbridge of 17th-18th century date straddles the river. A further 18th-19th century industrial site, to the south of the assessment area, is recorded as a mineral works. There are a number of listed buildings adjacent to the site, most notably the mid 18th century Brindley Corn Mill, within the mill complex which is a Scheduled Ancient Monument.
- 11.6 The Churnet works' northern boundary meets an area of open ground which lies within the Application Site. This has the potential to contain alluvium, palaeochannels, well-preserved organic remains and the site of a medieval or post-medieval mill. The development therefore has the potential to affect these potential archaeological

remains.

- 11.7 Brindley Mill and other listed buildings, which lie adjacent to the south east perimeter of the Site are of 18<sup>th</sup> and 19<sup>th</sup> century date. Sympathetic residential and/or retail development along this side of the site could have a beneficial effect on their visual setting, in comparison with the existing underutilised/derelict industrial units on the Site. This is of particular reference to the Brindley Mill, which is a historic and cultural tourist attraction.
- 11.8 The Grade II listed Abbey Green Road footbridge lies within the site perimeter near to the current entrance. Unless it is undertaken sympathetically, the development has the potential to have an adverse effect on its structure, visual setting and amenity. However renovation and regular maintenance of this structure would have a beneficial effect on the setting of Brindley Mill and other listed buildings in the vicinity.
- 11.9 It is recommended that a written and drawn record be made of Abbey Green Road footbridge and the early 20<sup>th</sup> century industrial buildings located either side of the river within the southern half of the site in advance of the development.
- 11.10 It is also recommended that an archaeological evaluation be carried out prior to the commencement of demolition and construction works. It is suggested that this should initially sample the undisturbed flood plain forming the northern part of the Application Site and accessible areas between the buildings. Dependent on the results of the evaluation further archaeological mitigation may be required which could include further evaluation following demolition, open area excavation or watching brief.



## 12. Noise and Vibration

- 12.1 The assessment was conducted with regard to the Development Plan and PPG24 which provide non-site specific, generic guidance with regard to noise from new development.
- 12.2 The potential noise effect from piling for building foundations was assessed, with reference to a fixed construction noise limit of 70 dB  $L_{Aeq,1h}$ . Limited data concerning proposed construction methods required a qualitative assessment of general construction activities.
- 12.3 The assessment of operational noise included noise from the arrival and departure of delivery vehicles, the unloading of goods from delivery vehicles to the supermarket and employment units and the operation of the supermarket car park, including night time operations. Time-averaged and single-event maximum noise levels were calculated at nearby residences and assessed against appropriate noise limits. Additionally, noise effect from supermarket service plant was also conducted, with reference to the methodology defined in British Standard 4142.
- 12.4 Assessment of development traffic noise effects was conducted, using projected baseline and development traffic flows for the store opening year. The change in the noise level was calculated for road links where a 25% increase in traffic flows, or a significant increase in heavy vehicle traffic, was expected.
- 12.5 The assessment of the suitability of the development site for residential development was conducted in accordance with PPG24. Using the measured existing, and predicted development noise levels, the Site was placed into a Noise Exposure Category.
- 12.6 The baseline noise measurement survey identified that dominant noise sources in the area were typically road noise and noise from the Tessengerlo plant adjacent to the Site.
- 12.7 During the construction phase, potential noise effects from piling were predicted to be of up to moderate significance.
- 12.8 Night time operational effects were predicted to result in no effect or a negligible effect at existing residences. The assessment of operational traffic effect suggested that a negligible noise increase is predicted. Significant effects from externally mounted service plant are not expected.
- 12.9 The assessment of suitability for residential development placed residences close to the store access road and Macclesfield Road into NEC C, but residences in other areas of the development into NEC A.
- 12.10 Mitigation is proposed to reduce noise effects from the construction phase of the development, in the form of Best Practice construction working methods and the

application for a Section 61 'prior consent' agreement. Additionally, the use of quieter piling techniques is recommended where possible.

- 12.11 With regard to proposed residences, mitigation against noise using double glazing supplemented by mechanically assisted ventilation installed within residences, was specified for proposed residences facing the supermarket access road and Macclesfield Road.
- 12.12 It is expected that the application of the recommended mitigation would reduce effects during the construction and operational phases of the development to negligible.
- 12.13 In conclusion, with the specified mitigation measures, the Proposed Development is predicted to have a **negligible** effect on the surrounding noise environment and the site is considered to be suitable for residential development.

## 13. Air Quality

- 13.1 The assessment included a review of SMDC air quality documents and local monitoring data in order to establish the existing air quality conditions at and near to the Site.
- 13.2 Air quality effects relating to the construction phase of the Proposed Development were assessed qualitatively in terms of the potential dust nuisance of on-site activities. Air pollution, particularly nitrogen dioxide (NO<sub>2</sub>) and particulate matter (PM<sub>10</sub>) emissions, from the exhausts of both on-road and off-road vehicles were assessed quantitatively. The assessment also identified the locations at which these potential effects may occur.
- 13.3 Potential air quality effects relating to the operation of the Proposed Development were assessed using an atmospheric dispersion model. The model was used to predict the release of air pollutants (NO<sub>2</sub> and PM<sub>10</sub>) from vehicles using the local road network, both without and with the development in place for the opening year (2013). The effect of the Proposed Development was quantified as a percentage change between the without and with modelled situation, at identified sensitive receptors. The percentage change was used to assign an equivalent level of significance in line with best practice guidance. The approach was conservative, in that the worst-case of several years of dispersion conditions were reported, and receptor locations considered were those in closest proximity to the road links most likely to be affected.
- 13.4 A review of SMDC air quality documents and local air quality monitoring data revealed that there is no AQMA designated at or near to the Site. Modelling showed that air quality objectives are being met at all modelled receptor locations.
- 13.5 The construction phase has the potential to cause nuisance through the release of dust at houses and the listed water mill buildings adjacent to the Application Site. The potential for these properties to be affected will vary depending on the nature and duration of the activities, where on Site they take place and the local weather conditions. Overall without mitigation, construction activities are predicted to have, at worst, a minor, temporary and localised adverse effect at these receptors. Without mitigation on-road and off-road construction vehicles are predicted to have a minor, temporary adverse effect on local air quality for the duration of the construction works only.
- 13.6 The operational development is predicted to increase traffic levels on the local road network, including in the centre of Leek. However, the air quality modelling assessment predicted that air pollution concentrations at roadside residential properties in the centre of Leek and near to the Site would be below the air quality objectives, both without and with the Development in place. Air quality levels predicted at proposed new housing units were also below the air quality objectives. Without mitigation the air quality effect at all modelled receptor locations is predicted to be minor adverse.
- 13.7 Potential emissions from the proposed biomass boiler plant on-site, which will provide a renewable energy supply to the supermarket, were calculated in accordance with

Government technical guidance. NO<sub>x</sub> and PM<sub>10</sub> emissions were found to be below the threshold of significance at which detailed modelling would be required.

- 13.8 Tessenderlo Fine Chemicals (TFC) operates an industrial facility adjacent to the Site. Emissions from TFC were considered in-combination with on-Site vehicle exhaust releases and were found to be below the relevant air quality objectives.
- 13.9 A number of best practice mitigation measures for the control of dust release from construction activities would be detailed within an Environmental Management Plan. The final construction traffic route should, where possible, avoid narrow roads with a high number of houses alongside. No mitigation measures are considered necessary for the completed development, in terms of air quality.
- 13.10 The use of mitigation measures will reduce the effect of construction related dust effects from minor adverse to negligible.
- 13.11 The operation of the completed development is predicted to have a **minor adverse** effect on local air quality, with the Site considered suitable for residential use.

## 14. Flood Risk

- 14.1 Chapter 14 considers the effects of the Proposed Development on surface water, groundwater levels and flows. The assessment also considers the potential for flood risk associated with alterations in the surface water regime and from nearby water courses and the Proposed Development's effect on drainage, water supply and water resources. Potential effects during both the construction and operational periods of the Proposed Development have been identified and assessed. The chapter describes the policy context, methods used to assess the Proposed Development and the baseline conditions currently existing at the Application Site. The potential effects of the Proposed Development are assessed and the residual effects determined, taking into account the measures which have been adopted to prevent, reduce or offset adverse effects. The effects on ground and surface water quality from existing ground conditions and potential contaminants on the Application Site are assessed in Chapter 15 Ground Conditions, whilst potential effects on aquatic flora, fauna and protected sites are addressed in Chapter 9 Ecology.
- 14.2 During the production of the Chapter, regular consultation was undertaken with the Environment Agency (EA) to determine the requirements for the completed chapter and also on enhancing the Proposed Development.
- 14.3 The Proposed Development is located within Flood Zone 3, with a percentage of the site within functional flood plain. Research has been undertaken to identify any historical flooding event at the Proposed Development location. Local residents have provided photographic evidence of an extreme previous flooding event, during this event the area identified as functional flood plain was flooded. Due to this and along with EA requirements it is concluded that this area was to become Public Open Space and partially a wetland area with a permanent pond.
- 14.4 It was identified that there are existing drainage systems within the Proposed Development which will be removed, the location of existing Severn Trent Water adopted sewer systems have been identified. Using the existing site layout and the Topographical Survey, areas of existing hardstanding (paved areas, tarmac etc) and the existing roof areas were calculated, this area was used within the calculation to determine the existing surface water run-off for the Proposed Development.
- 14.5 Residual effects were assessed following the inclusion of any mitigating measures allowing for the completion of the Chapter and for conclusions on the development to be reported.
- 14.6 The Application Site's Flood Zone 3a designation means that it is inside the currently defined 1% annual exceedance probability (AEP) flood event. There are records of sewer and surface water drainage flooding outside of the Application Site boundary; however, as noted in the SFRA, the risk is considered low.

- 14.7 The surface water from the proposed car park run-off will discharge via permeable surfacing into the flood compensation/wetland area, the surface water from the roof run-off for the supermarket and retail units will be recycled in a rainwater harvesting system.
- 14.8 It is concluded that the proposals for the Application Site would not impact on the current flood risk. The proposals have minimal effect on the flood risk from any source, with minimal effect of causing flooding elsewhere. Some of the mitigation measures described in the ES should be included in the development if required.
- 14.9 The development is appropriate and will have an overall effect of **moderate beneficial**.

## 15. Ground Conditions

- 15.1 The Site conditions have been established based upon guidance contained within DEFRA contaminated land reports which describe the investigation and risk management process to be adopted when assessing potentially contaminated sites, including the development of a Conceptual Site Model which identifies the sources of contamination, the potential receptors eg soil, water, human, ecological, and pathways by which receptors could be exposed. Contaminants are then assessed according to the likely consequence (severity) when reaching a receptor. The likelihood of a pathway being formed from the source to the receptor is then assessed and the risk evaluated accordingly.
- 15.2 Significance criteria has been derived on a seven level scale of significance in accordance with contaminated land guidance based upon the significance of the source, sensitivity of the receptors and viability of potential pathways.
- 15.3 Initial consultations were held with the EA which identified a previous pollution incident attributed to the former owners Courtalds which is being monitored by the EA. Discussions will be ongoing with the EA and local authority to develop a remediation strategy to remove any risk of harm to identified receptors.
- 15.4 The site comprises three principal areas – the Main site, a yard area identified as possible former landfill, and an area of open space. The Main site comprises semi-redundant buildings historically used as a dyeing and finishing works for the textile industry which in recent years have been separated into a number of units and leased to tenants. The range of small industries currently occupying the Site include dyeing and finishing works, vehicular repairs, furniture restoration and manufacture, agricultural engineers and storage.
- 15.5 A Phase I desk study reviewed physical and environmental information and mapped references to characterise the site and its setting. This information was then used as the basis of a Phase II environmental ground investigation designed to provide an indication of ground conditions across the Site. The investigation included the excavation of thirty five window sample holes to obtain representative samples of the underlying strata for chemical soil analysis. Monitoring wells were installed to allow for the monitoring of groundwater and ground gases.
- 15.6 The findings of the chemical analysis were then compared to generic soil guideline values (SGV) for residential and commercial land use and identified the requirement for remedial works within the former landfill area, within gardens of the proposed residential homes and within landscaping. The requirement for groundwater remediation requires further investigation and discussion with the regulatory authorities.
- 15.7 The review of potential effects is based upon the assumption that the ground will be disturbed during demolition by the lifting of hard standings, floor slabs, existing infrastructure and foundations which creates new pathways by which existing

contaminants could affect identified receptors. Potential receptors included humans, soils, controlled waters, ecosystems and proposed structures. The assessment of potential effects indicated that there would be a minor adverse to moderate adverse effect upon humans, soil and controlled waters from the intended demolition phase, although the effect upon sensitive ecosystems would be negligible.

- 15.8 If the development then proceeded to completion the ongoing effects would continue to be minor to moderate adverse and negligible on proposed landscaped areas and sensitive ecosystems.
- 15.9 A range of remedial proposals will be developed to mitigate for the current and potential effects of the Proposed Development. A remediation strategy will be prepared which will include as a minimum, for the removal of made ground materials within the former landfilled area, screening and then sampling for suitability prior to replacement or disposal off site, removal of all general wastes, debris and drums and controlled decommissioning of all existing infrastructure. The development of site specific assessment criteria for soils within the residential area and the placement of clean cover materials in all garden areas and landscaping will be required. Further investigation and delineation of VOC contamination within the deep and perched groundwater, to be agreed in consultation with SMBC and EA and development of a construction environmental management plan to control and manage the risk of pollution incidents and derogation of soil quality during all phases of the works.
- 15.10 Implementation of anticipated remedial works, health and safety guidelines, environmental controls and best practice would remove exposure to contaminants and provide a minor beneficial residual effect for humans, soils and surface waters during the construction process, and a moderate beneficial effect to groundwater.
- 15.11 On completion of the development a minor beneficial effect can be anticipated for surface waters, but a moderate beneficial effect can be anticipated for humans, soils and groundwater.
- 15.12 Once the site has been remediated to statutory regulatory approval the completed development will have a **minor to moderate beneficial** effect on ground conditions at the Site.



## 16. Cumulative Effects

16.1 Two types of cumulative effects have been assessed in relation to the Proposed Development:

- The interaction of individual effects of the Proposed Development. For example, noise, dust and visual intrusion during the demolition and construction works; and
- The effects resulting from the Proposed Development in combination with other schemes.

16.2 During the demolition and construction phases of the Proposed Development (expected to take approximately 65 weeks), there will be some temporary cumulative effects primarily associated with noise, vibration, dust, visual effects and traffic. The scale of the effects will, however, depend on whether and to what extent construction periods (such as site preparation and enabling works, demolition, and superstructure construction) periods overlap. This is unknown at present. The CEMP for the scheme will accord with the local authority's requirements and should ameliorate these construction related combined effects as far as practically possible.

16.3 There are no significant developments within the vicinity of the Application Site which have planning permission.

16.4 Overall, beneficial cumulative effects will arise in terms of:

- the creation of new jobs;
- the creation of new housing and employment accommodation and public open space;
- associated contributions to the local economy and improving the town's offer;
- improving accessibility in the town by modes other than the private car.

16.5 There will also be beneficial effects in relation to the adjacent built heritage through improvements to its settings.

## 17. Residual Effects

- 17.1 Each assessment has identified the residual effects of the Proposed Development following the incorporation of recommended mitigation measures and completion of the scheme.
- 17.2 The assessment has identified that the residual effects will on the whole be either **negligible** or **minor beneficial**.
- 17.3 There will be isolated examples of adverse effects but these are limited in scale and magnitude. Minor adverse effects are limited to the effect of the Proposed Development on:
- air quality during construction – temporary effect;
  - general effect on local air quality – due to conservative approach to dispersion modelling assessment and no mitigation measures proposed; and
  - visual effect on Numbers 47 and 49 Macclesfield Road and the section of Leek Town Footpath No.6 between Highfield Hall Park (Bridge End) and Abbey Green.
- 17.4 The loss of Hedgerows 2 and 3 represents a substantial adverse effect in terms of magnitude but has negligible significance.
- 17.5 The Proposed Development has a number of significant beneficial effects following completion. These include:
- Redevelopment of an identified regeneration site;
  - Creation of job opportunities;
  - Enhanced retail (food and non-food) and employment offer in the town;
  - Provision of a significant area of public open space;
  - Improved walking and cycling access, connecting the site with the town centre and surrounding area;
  - New shuttle bus service connecting the Site to the town centre and surrounding residential area;
  - Replacement trees and enhanced landscaping; and
  - Enhanced setting for the adjacent Listed buildings and SAM.