
14 Social and Economic Effects

Introduction and Methodology

- 14.1 This chapter assesses the likely significant social and economic effects of the project. Appendices 14.1 to 14.13 contain the background information describing the baseline conditions (primarily economic) discussed below.
- 14.2 The chapter describes the assessment methodology; the baseline conditions currently existing at the application site and surroundings; and the likely significant environmental effects, taking into account measures proposed to avoid, reduce or offset adverse effects.

Scope of Assessment

- 14.3 Given the nature of the development, the principal likely effect during both the construction and operational stages would be the creation of employment.
- 14.4 Potential social effects in respect of amenity have also been considered within the assessment. These include effects on users of the Trent and Mersey Canal and the long distance footpath on the towpath on the canal's west bank and effects on Griffith's Park, a substantial area of public open space located close to the site. The project does not include any housing and is not expected to generate significant population increase due to the anticipated employment provision and it is therefore not necessary to consider the effects on local community facilities such as schools and health care.
- 14.5 The assessment does not cover potential effects on health. These effects are covered separately within the air quality chapter of this ES and in the Health Impact Assessment submitted with the application.
- 14.6 Other social aspects of the project such as, landscape and visual impact, noise and odour are covered by separate chapters in this ES.

Study Area, Administrative Arrangements and Availability of Data

- 14.7 The project site is located in what from 1974 until 31 March 2009 was Vale Royal Borough, one of the six local authority districts which made up the administrative County of Cheshire. New arrangements took effect on 1 April 2009, when the County and district councils were replaced by two unitary (all purpose) authorities. Vale Royal Borough was combined with Chester City and Ellesmere Port and Neston Borough to form Cheshire West and Chester.
- 14.8 Recently the National Online Manpower Information System (NOMIS) has published in its Labour Market Profiles, an important source of data for this assessment, based on the new local government boundaries in Cheshire, while continuing for the time being to provide information based on the old boundaries. The new information has been examined as part of

this assessment. However, this assessment relies almost entirely on information based on the old boundaries, for reasons set out below. First, the Census data are based on the old boundaries, and the Census is still the most up to date source of reliable information on a number of topics for example car ownership and travel to work. Secondly, where more up to date sources exist, they are usually based on samples rather than a full survey of the population and are therefore inherently less reliable. It is thus helpful to use the old boundaries for recent information so that the Census can be used as a benchmark and comparisons can be made. Thirdly, the characteristics of the local area, Vale Royal Borough, are quite different in many respects from the other constituent parts of the new authority of Cheshire West and Chester, especially the former Chester City, and these characteristics would not be revealed if the data for the new area were used.

- 14.9 The project site lies approximately 4km from Vale Royal's boundary with Macclesfield Borough, now part of Cheshire East. In many of the statistical tables, figures are presented for Macclesfield Borough as well as Vale Royal. Since there is a substantial amount of interaction, measured by the travel to work flows, between the Cheshire authorities and others outside the County, data for a much wider area are presented where appropriate.

Assessment Methodology

Relevant Guidance

- 14.10 There is currently relatively little Government regulation or guidance setting out the preferred method for, or content of, an assessment of potential social and economic effects as part of Environmental Impact Assessment (EIA). However, European Directive 147/11/EC, Article 3, Annex 4 states that effects on 'population' and 'material assets' should be assessed when undertaking EIA. Where relevant, the following guidance has been taken into account:

- Department of the Environment (1995) Preparation of Environmental Statements for Planning Projects that Require Environmental Assessment;
- Department for Energy and Climate Change (2009) Draft National Policy Statement EN-1;
- Morris, P. and Therivel, R. (2001) Methods of Environmental Impact Assessment.

Method

- 14.11 In the absence of any prescribed method for carrying out such assessments, this assessment has relied on assembling and analysing relevant data to establish the baseline conditions from a number of sources. The two principal sources are those already referred to in the context of defining the study area, the 2001 Census and the NOMIS Labour Market Profiles. Information relating to the project itself has also been an important source of information, particularly in relation to the scale and nature of employment likely to be created in the operational phase.

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- 14.12 Baseline information on existing social and economic conditions in Cheshire has been obtained from the 2001 Census and the National Online Manpower Information System (NOMIS) Labour Market Profiles.
- 14.13 Although the data from the 2001 Census are now over eight years old, they still form an important part of any assessment of social and economic effects, as they are reliable, comprehensive and consistent. The Census remains the source of the most recent data on some topics, such as travel to work. Even where, for example, the Labour Market Profiles provide more up to date figures on some topics also covered by the Census, the explanatory notes to the Profiles draw attention to the small sample sizes involved. This makes comparison and assessment of trends between the Census and the present day more difficult.
- 14.14 In some cases, for example for income, the Census provides no data, and therefore other sources have been relied on.
- 14.15 In relation to an assessment of the change to amenity, or relative pleasantness, of the public footpath to the south and on Griffith's Park, the assessments relating to views, noise and dust are referred to.

Consultations

- 14.16 As described in Chapter 5, a formal scoping exercise has been undertaken to inform the scope of the EIA. In addition to the formal scoping exercise, the following informal consultations and discussions have informed this chapter:
- With staff at the National Online Manpower Information System (NOMIS) to discuss the availability of data for the new local government areas in Cheshire,
 - With the Office for National Statistics (ONS) to discuss the availability and reliability of travel to work data,
 - With officers at Cheshire West and Chester Council to discuss the status of the Cheshire Replacement Waste Local Plan and the Vale Royal Borough Local Plan First Review Alteration.

Assessment of Significance

- 14.17 In order to assess the significance of effects the following definitions are used:
- Substantial: The effects represent key factors in the decision-making process. They are generally, but not exclusively associated with sites and features of national or international importance and resources/features which are unique and which, if lost, cannot be replaced or relocated.

- Major significance: Effects of the project of greater than local scale and, if adverse, are potential concerns to the project depending upon the relative importance attached to the issue during decision-making;
- Moderate significance: Effects of the project that may be judged to be important at a local scale but are not likely to be key decision making issues;
- Minor significance: Effects that may be raised as local issues but are unlikely to be of importance in the decision-making process, although they may be of relevance in the detailed design of the project.

14.18 Where an effect is described as 'neutral' this means that there is either no effect or that the significance of any effect is considered to be negligible (e.g. beneath levels of perception, within normal bounds of variation or within the margin of forecasting error).

14.19 All other levels of significance apply to both adverse and beneficial effects. In all cases, the judgement made as to significance is that of the author with reference to appropriate standards/guidelines where relevant.

14.20 Where there are issues of particular importance to an area, this can contribute to the determination of significance. For example, if new employment provision is sought in the area e.g. through a planning policy or in relation to rising unemployment levels, then a provision of such employment might be valued more highly.

Cumulative Effects

14.21 Cumulative effects may arise from planned development of all kinds in the vicinity of the project and also from strategic waste proposals within the County and immediate surrounding area. Within Cheshire, there are a number of strategic waste proposals with consent, submitted to the planning authorities or other determining authority, or in preparation. These include a resource recovery facility at Wincham, approximately 2km north east of the Brunner Mond site. The application for this development was submitted in late 2009. In these circumstances the issue of cumulative effects is considered to relate to the demand for construction labour.

Limitations of the Assessment

14.22 Particular issues relating to the sources, meanings and limitations of the data are covered in the discussion of individual topics.

Baseline Conditions

Policy Context

14.23 Planning guidance and policy at all geographical levels has been examined to identify any which is directly relevant to social and economic effects.

National Guidance and Policy: Planning Policy Statement 1

14.24 Paragraphs 16 and 23 are the most directly relevant to the current assessment. Paragraph 16 states that: *'development plans should promote development which promotes socially inclusive communities'*. Among the objectives listed for plan policies are the reduction of social inequalities and improving accessibility to jobs.

14.25 Paragraph 23 ('Sustainable Economic Development') states that *"the Government is committed to promoting a strong, stable and productive economy that aims to bring jobs and prosperity for all"*. It goes on to list ten objectives for planning authorities, including:

"Planning authorities should:

- *Recognise that economic development can deliver environmental and social benefits;*
- *Recognise the wider sub-regional, regional or national benefits of economic development and consider these alongside any adverse local impacts;*
- *Ensure that suitable locations are available for industrial, commercial, retail, public sector (e.g. health and education) tourism and leisure developments, so that the economy can prosper;*
- *Provide for improved productivity, choice and competition, particularly when technological and other requirements of modern business are changing rapidly;*
- *Recognise that all local economies are subject to change; planning authorities should be sensitive to these changes and the implications for development and growth;*
- *Actively promote and facilitate good quality development, which is sustainable and consistent with their plans;*
- *Ensure that infrastructure and services are provided to support new and existing economic development and housing;*
- *Ensure that development plans take account of the regional economic strategies of Regional Development Agencies, regional housing strategies, local authority community strategies and local economic strategies; and,*
- *Identify opportunities for future investment to deliver economic objectives."*

Regional Policy: The North West of England Plan

14.26 The North West of England Plan: Regional Spatial Strategy to 2021 was adopted in September 2008. This RSS, like the others in England, is described by the Government as a 'spatial' plan, meaning that it is broader in its scope than traditional land use plans. Some of its chapter headings, for example 'Working in the North West – Achieving a Sustainable Economy', and 'Living in the North West – Ensuring a Strong Healthy and Just Society' reflect this view of the nature of plans.

- 14.27 Policy DP3 supports and promotes sustainable economic growth.
- 14.28 Paragraph 6.2 refers to the provision of a range of local sites which will support the development of diversified local economy, ensuring there is access to a range of job opportunities for the local population.

County Policy: The Cheshire Replacement Waste Local Plan

- 14.29 The Cheshire Replacement Waste Local Plan was adopted on 12 July 2007. Despite the recent demise of the authority (the County Council) which prepared it, the Local Plan will guide waste related development in Cheshire until the new Council produces a Core Strategy, probably in 2011, which will contain strategic policies for waste, and another Development Plan Document containing detailed policies.
- 14.30 The content of the Waste Local Plan has been examined for relevance. As it is an old-style local plan, and not a 'spatial' plan as described above. Policy 1, however, states that waste management developments should among other things '*protect environmental, economic, social and community assets*'.
- 14.31 The project site forms part of land identified in the Waste Local Plan for waste management purposes.

Local Policy: The Vale Royal Borough Local Plan

- 14.32 The Vale Royal Borough Local Plan First Review Alteration was adopted in June 2006. Planning officers at Cheshire West and Chester Council advise that all but two of its policies have been saved under the relevant provisions of the 2004 Planning and Compulsory Purchase Act. The surviving policies are likely to remain in force until the new Council produces the Core Strategy referred to above.
- 14.33 Chapter 6 Employment (at paragraph 6.5) seeks to support the community's vision of a "diverse economy in Vale Royal which attracts investment and engages all the talents of the community". Policies within Chapter 6 aim to meet priorities set out in the Community Plan, including:
- Reduce unemployment amongst Vale Royal residents.
 - Increase the wealth of the Borough by the attraction of investment into each of its towns as centres of habitation, commerce, service and recreation.
- 14.34 Paragraph 6.11 encourages new employment developments in locations which relate well to existing and proposed housing developments, transport infrastructure, areas of high unemployment and availability of deliverable sites.

Existing Conditions

Introduction

- 14.35 Most of the project site is located in the Northwich Witton ward, one of 28 electoral wards which made up Vale Royal Borough. The ward boundary follows the Trent and Mersey canal adjacent to the site. The planning application area boundary also includes some land to the east of the canal in Shakerley ward, which is proposed to be used for the temporary storage of construction materials.
- 14.36 Northwich Witton ward is a mixed commercial, residential and industrial area which includes the town centre of Northwich. It had a population of 6,049 at the time of the 2001 Census, out of a Borough total of 122,089. Data for the ward are presented in the appendices to this chapter and are discussed in this section. It will become apparent that the characteristics of the ward, to the extent that they differ significantly or at all from those of the former Borough or wider area, are less important in this context than those of the wider areas.
- 14.37 The project site itself is situated about 2.5km east of the centre of Northwich, which is the principal town in the Borough. The former Borough Council defined Northwich as including a number of surrounding parishes forming a discontinuous built up area with a population of about 54,100 out of a Borough total (2008 estimate) of 126,800. Winsford, located about 14 km south of Northwich, is the only other significant town in the Borough and has a population of about 31,000.
- 14.38 The topics considered below are either directly relevant to the assessment, for example in identifying the size of the construction labour force locally in the region, or indirectly relevant. Two examples of the latter are general health and limiting long term illness, which are linked to levels of economic activity and ultimately to the need for employment in the area, and car ownership, which is an indicator of the ability (or need) of the local population to travel to jobs outside the local area in a situation where public transport does not, on the basis of the figures for mode of travel to work, cater effectively for travel to work.

Migration

- 14.39 Appendix 14.1 provides a brief summary of data from Table KS24 in the 2001 Census. Approximately 10% of the Borough's population at the time of the Census of about 122,000 were migrants, that is, had a different address a year before the Census. More than half of these, however, had moved within the area; just over 5,000 people moved into the Borough from elsewhere in or outside the UK. Just over 4,000 people moved out of the area in the same period, meaning that there was a net increase in the Borough's population owing to net immigration of about 1,000 people. This represents a snapshot of migration: it should not necessarily be assumed that this particular level of migration has continued since the Census. Other sources of data on migration are less reliable.

General Health and Limiting Long Term Illness

- 14.40 Data on these topics are taken from Census Tables UV20 and UV22 and are presented in Appendix 14.2. No more recent data are available. In England and Wales, 68.2% of respondents considered themselves to be in good health, 22.2% in fairly good health and 14.2% in not good health. Broadly similar figures were found in the local areas, except in Northwich Witton ward where only 62.9% considered themselves to be in good health and 12.2% were in not good health.
- 14.41 These figures are consistent with the data for limiting long term illness, with about 82% of the population in England and Wales without such an illness. Again, similar figures were found in the local areas, except in Northwich Witton ward where the figure was 77%.
- 14.42 These data should be read alongside those for economic activity.

Car Ownership

- 14.43 Appendix 14.3 presents data from Table UV62 of the 2001 Census for Northwich Witton ward, Vale Royal and Macclesfield Boroughs, with England and Wales for comparison. No more recent or reliable data are available, although it is likely that in all areas there will have been some increase in levels of car ownership.
- 14.44 In England and Wales at the time of the Census, 26.8% of households had no car. In Cheshire, a lower figure of about 19% obtained, and lower still in Vale Royal and Macclesfield. However, the figure in Northwich Witton ward was significantly higher at 30.3%. Broadly similar figures are found in all the areas for which data are presented for households with one car. The differences are in the figures for two cars: whereas 23.5% of households in England and Wales had two cars, the comparable figure for Cheshire was 30.8% and in Vale Royal and Macclesfield 32.6% and 33.6% respectively.
- 14.45 The average number of cars per household in England and Wales was 1.11. However, in Cheshire it was 1.30, in Vale Royal 1.35 and in Macclesfield 1.38. In Northwich Witton ward, however, it was 0.98.
- 14.46 These figures should be read in conjunction with the data on travel to work (origins and destinations, modes and distances) discussed below.

Industry

- 14.47 Appendix 14.4 sets out data from Table CAS39 of the 2001 Census, which uses the SIC92 classification of industry. This indicates that 15% of people in England and Wales were employed in manufacturing. A slightly larger percentage of residents in the local areas worked in this sector, but otherwise there are no significant differences in between the national and local industrial profiles for the purposes of this assessment.
- 14.48 About 7,000 people worked in the construction sector in Vale Royal and Macclesfield boroughs, and about 17,500 in Cheshire as a whole.

- 14.49 The Labour Market Profiles provide more up to date information which is also set out in Appendix 14.4.

Occupation

- 14.50 Appendix 14.5 sets out figures from Table UV30 of the 2001 Census. In England and Wales, approximately 53.5% of people worked in occupational groups 1 to 4, broadly speaking in white collar occupations. Similar figures were obtained in the local areas, except in Macclesfield Borough where about 64% of residents worked in Groups 1 to 4. This partly reflects the Borough's role as part of the Manchester Travel to Work Area, discussed below.
- 14.51 The Labour Market Profiles again provide more up to date information which is also set out in Appendix 14.5. No data are available at ward level. Figures are shown for Vale Royal Borough and Cheshire, and percentage figures for Great Britain (as opposed to England and Wales). Unlike the Census these figures are based on a sample of the population and are rounded to the nearest hundred. This makes comparisons with the Census less helpful than would be ideal. In Vale Royal the figures imply a fairly sharp increase in the total number of resident workers, from 57,000 to 62,400 compared with a smaller relative increase in Cheshire, from 318,600 to 336,800. In Cheshire there appears to have been a small increase in the percentage of people in groups 1 to 4 but the figures for Vale Royal imply a decline, contrary to national trends.

Economic Activity

- 14.52 Appendix 14.6 sets out figures on economic activity from Table UV28 of the 2001 Census. In England and Wales, two thirds (66.5%) of the population aged 16 to 74 was economically active. In the local areas, economic activity rates are slightly higher, in the range 68 to 69%, but otherwise there are no significant differences between the local areas and the national average in any of the categories into which the data are broken down. The poorer health apparently experienced by the residents of Northwich Witton ward is not reflected in lower economic activity rates.
- 14.53 Figures for unemployment are included in Table UV28, as part of the economically active, rather than inactive, on the basis that the people concerned are seeking work. However, unemployment fluctuates more than the other categories in the table and monthly figures are published. These are considered below.

Unemployment

- 14.54 Appendix 14.7 sets out figures for claimants of Jobseekers' Allowance. These are the most recent available, for October 2009. The figures show that unemployment as a percentage of the workforce stands slightly higher in Vale Royal than in neighbouring Macclesfield and in Cheshire as whole, but lower than in Great Britain and the North West region.

- 14.55 Time series data show that unemployment in Vale Royal Borough stood at about 1,500 people in January 2006, fluctuating between 1,350 and 1,700 until August 2008 before rising steeply to pass 2,000 by December 2008 and reaching a peak of 2,997 in August 2009, before falling slightly to 2,822 in October 2009. The current figure is 77% higher than in August 2008.
- 14.56 More than two thirds of the unemployed in Vale Royal are men – representing 71% of the total in January 2006 and 72% in October 2009. At these dates the unemployment rates for men were 2.6% and 5.0% respectively, higher than for the workforce as a whole.
- 14.57 The claimant count gives the lowest numbers of any method of measuring unemployment, and includes only those people who are both seeking work and eligible for benefits. Sheffield Hallam University (SHU) has carried out a significant amount of research on unemployment throughout Great Britain, its latest report being published in January 2007. The focus of SHU's research was on the real level of unemployment in Great Britain, and in particular on hidden unemployment, or that which is not revealed by official figures. Hidden unemployment includes people seeking work but who are ineligible for benefits, people on government schemes, and those on sickness and incapacity benefits.
- 14.58 The highest levels of real unemployment in England are found in some inner London Boroughs, the West Midlands conurbation, and the northern industrial areas. Real unemployment in Vale Royal was estimated at 4,000 people, consisting of equal numbers of men and women, giving (unusually) a higher percentage rate of real unemployment among women than for men. The total percentage of real unemployment in Vale Royal was 5.2% in January 2007, compared with 2.1% claimant unemployment; this was about average for Cheshire.
- 14.59 Maps in SHU's most recent report show significant differences between Cheshire and the unitary authorities to the north, including Liverpool and Manchester, where real unemployment is significantly higher. It ranged from 9.8 to 14.5% in Merseyside and from 6.4 to 11.4% in Greater Manchester. In particular, Halton Borough, which adjoins Vale Royal, was ranked 19th highest in real unemployment out of the 408 districts in Great Britain, with a rate of 11.9% in January 2007.

Qualifications

- 14.60 Appendix 14.8 sets out data from Table UV24 of the 2001 Census. Levels are given in NVQ or equivalent, where Level 1 represents some qualifications at GCSE level, Level 3 at A level, and Level 4/5 degree or above. The table shows that 29.1% of the population aged 16 to 74 in England and Wales had no qualifications. Broadly similar figures obtained in the local areas, except in Macclesfield where 21.3% lacked any qualifications. The same is true for Level 4/5, where the local areas showed similar figures to England and Wales, with Cheshire as a whole a slightly higher figure at 23%, and Macclesfield significantly higher at 28.4%.

- 14.61 More recent data appear in the Labour Market Profiles. These are for 2008, and are on the same basis, of NVQs or equivalent. These are also shown in Appendix 14.8, for Vale Royal, Cheshire and with percentages for Great Britain, the comparator used in the Profiles instead of England and Wales in the Census. However, the figures are presented in a different way, with totals and percentages shown as cumulative figures starting with the highest level (NVQ 4 and above).
- 14.62 Furthermore, the data published in the Labour Market Profiles are from the ONS annual population survey, a sample, as opposed to the Census, which covers the whole population. The notes in the Labour Market Profiles on qualifications do not refer to sample size (in contrast for example to the figures for earnings, derived from the Annual Survey of Hours and Earnings, which is a 1% sample). Nor do they add any note of caution about the interpretation of the data.
- 14.63 For these two reasons a comparison of the two data sets must be undertaken with caution. However, it seems likely that there will have been a considerable increase in recent years in the number of people with degrees or equivalent qualifications given the continued expansion of higher education in the country as a whole. The very marked decline in the numbers of people without any qualifications at all is probably explained at least in part by the retirement of large numbers of people without qualifications and their replacement in the labour force of young people with at least some basic qualifications.

Travel to Work

- 14.64 Travel to Work Areas (TTWAs) were defined by ONS using travel to work data from the 2001 Census. They are based on aggregates of output areas, and for this reason generally cut across local authority boundaries. Consultation with local authorities before boundaries were finally fixed may have resulted in some adjustments to produce a tidier pattern.
- 14.65 The criteria used to define travel to work areas were the same as in the 1991 Census: 75% of people living in an area also working in it, 75% of people working in an area also living in it, and a minimum working population of 3,500. In practice most TTWAs other than in remote rural areas are much larger than this. Also, there are now fewer but larger TTWAs, 243 in Great Britain in 2001 compared with 308 in 1991, reflecting the greater distances which many people are accustomed or obliged to travel to their workplace, and the corresponding increase in the distance bands used in the relevant Census question.
- 14.66 The project site is located in the northernmost part of the Crewe and Northwich TTWA, which consists of most of Crewe and Nantwich Borough, and large parts of Vale Royal and Congleton Boroughs. At the time of the 2001 Census, the TTWA contained 127,232 resident workers, compared to the three districts as a whole which had a resident working population of about 153,000. The TTWA also contained 112,438 jobs, meaning that there was a net deficit in it of about 15,000 jobs.

- 14.67 The north-eastern boundary of the TTWA coincides with the local authority boundary with Macclesfield Borough, but the northern part of Vale Royal forms part of the Warrington and Wigan TTWA. The whole of Macclesfield Borough is included in the Manchester TTWA, the largest TTWA in Great Britain outside London, with a surplus of jobs (about 845,000) over resident workers (about 765,000) of about 80,000. On the basis of the TTWA boundaries, therefore, this part of Vale Royal Borough falls just outside the orbit of Manchester, although close enough for over 2,000 people to travel to work in that city from the Borough as a whole. This figure is taken from Appendix 14.9, which sets out a matrix of travel to work flows in Cheshire and selected surrounding areas.
- 14.68 The core of the matrix shows the flows between the six former Cheshire districts, including people living and working in the same district. Also included as origins and destinations are the two unitary authorities (Halton and Warrington) which adjoin Vale Royal to the north, and the two largest cities in the region (Liverpool and Manchester) which are relatively close (44 km and 39 km respectively) to Northwich. Travel to work patterns in the region are complex. All other origins and destinations are however treated as 'elsewhere'; although further detail is provided where necessary.
- 14.69 Some zero values appear in the matrix, for flows between Ellesmere Port and Neston and Congleton, and between Crewe and Nantwich and Manchester. The local authorities advise that these values are unlikely to be zero in reality, but the numbers of people involved were considered too small to be taken into account when the figures were published. However, the absence of the true figures for these flows does not affect the former local authority district in which the project is located, and is unlikely to affect the conclusions to be drawn.
- 14.70 Of Vale Royal's 57,000 resident workers, about 32,500 (57%) also worked in the Borough. Of the 24,500 working outside the Borough, about 10,000 worked in the rest of Cheshire, fairly evenly distributed between the other five districts. About 8,000 worked in the other four authorities featured in the table; mostly in the adjacent areas of Halton and Warrington. Approaching 6,500 people worked elsewhere, for example about 1,200 in Trafford, with flows in the low to mid hundreds to destinations such as Wirral and Stockport.
- 14.71 About 14,000 people came into Vale Royal from elsewhere to work. Of these, 7,500 came from within the County, including 2,600 from Congleton. There were moderate inflows (about 1,000 people each) from Halton and Warrington, and about 3,600 people from elsewhere, with no significant flows from any one district. The figure of 3,600 was by some way the smallest for any of the county's six districts; in contrast, the figure for Chester was 21,000 and that for Macclesfield 19,000. This, along with the distance of travel to work figures discussed below, shows that the local economy does not attract many people from elsewhere within the County or from further afield.
- 14.72 Appendix 14.9 also shows net flows for the six Cheshire districts, which fall into three groups. Chester and Macclesfield have substantial net inflows. Ellesmere Port and Neston and

Crewe and Nantwich show small net outflows, and Congleton and Vale Royal show substantial net outflows, in the order of 10,500 people in each case. In Vale Royal, this is equivalent to 18.7% of the resident workforce of just over 57,000 people.

14.73 Given the criteria used to define them (and summarised above), TTWAs by definition cannot be self contained. Nor can it be expected that any gross flows across TTWA boundaries in each direction are necessarily in balance.

14.74 There is no more up to date or comprehensive information on travel to work than from the Census.

Mode of Travel to Work

14.75 Appendices 14.10.1, 14.10.2 and 14.10.3 set out data from Table CAS119 of the 2001 Census. Figures for all people and for men and women are presented separately, as there are usually significant differences in the mode of travel to work for men and women.

14.76 First, however, any differences between the areas are considered. Appendix 14.10.1 shows that in all the areas for which data are presented, broadly the same percentage works at or from home. However, whereas 55.2% of people travelled to work as a car or van driver in England and Wales at the time of the Census, higher figures obtained in the local areas: 64.8% in Cheshire, 65.6% in Macclesfield, 68.4% in Vale Royal, rising to 72.4 % in Northwich Witton ward.

14.77 The local areas on the whole exhibit lower figures than for England and Wales for other modes, especially those considered sustainable – by train, bus and bicycle, and on foot.

14.78 Turning to the data in Appendix 14.10.2 (for men) and Appendix 14.10.3 (for women) the same contrasts between areas are apparent. In addition, the figures show that a higher proportion of men travelled by car, and a higher proportion of women on foot. However, the percentage of women driving a car to work was closer to that of men in the local areas than in England and Wales.

14.79 These figures are consistent with the higher levels of car ownership in the local areas than in England and Wales.

Distance of Travel to Work

14.80 Appendices 14.11.1 and 14.11.2 set out data for distance of travel to work for all six former Cheshire districts, the County, and England and Wales. The figures are from Table UV35 from the 2001 Census for residents, and from Table UV80 for people working in those areas.

14.81 There are minor differences in presentation. The figures for residents separate those people working at or from home from those whose workplace is described as 'not fixed'. The figures for workplace combine the two categories. The figures for residents include the categories 'offshore' and 'outside UK', which by definition do not apply to the workplace data.

- 14.82 The figures for at and from home also appear for residents in Table CAS119, described above in respect of mode of travel to work. These figures are broadly similar for the six Cheshire districts except for Ellesmere Port and Neston where the percentage (6.8) is significantly lower.
- 14.83 The profile for England and Wales show the greatest percentages in the up to 2 km and 2 to 5 km categories, 20% in both. A significant proportion of workers also fall into the 5 to 10 km and 10 to 20 km categories, but much lower percentages from 20 km upwards. This profile is generally observed in the local areas for which data are presented.
- 14.84 However, there are important differences, which are best illustrated by the figures for the combined distance categories – up to 5 km, and 10 to 40 km – which are also presented in the tables. In Vale Royal, 33.5% of residents travelled up to 5 km, compared with 37.5% in Cheshire and 40% in England and Wales.
- 14.85 The proportion of people travelling 10 to 40 km was 23% in England and Wales. This figure was exceeded in Cheshire (28.5%) and in all the constituent districts except Crewe and Nantwich. The highest figures, as might be expected, are in the districts where the smallest proportion travelled up to 5km – in Vale Royal 34.3%, Congleton 36.7%.
- 14.86 Turning to the workplace figures, the percentages for England and Wales are nearly identical to the residence figures, with 40.5% in the up to 5 km category, and 23.1% in the 10 to 40 km category. Among the Cheshire districts, there are some marked contrasts. In Vale Royal, the figures are very similar to those for England and Wales, with 41.9% travelling up to 5 km and 22.9% between 10 and 40 km. In the latter case, smaller figures were found only in Congleton (22.4%) and Crewe and Nantwich (18.4%). Crewe and Nantwich is relatively self contained, with (as the table shows) approaching 50% of both residents and workforce travelling up to 5 km. In the case of Vale Royal, however, as with Congleton, the small percentage in the 10 to 40 km category reflects the limited extent to which employment in the Borough attracts people from elsewhere. Local jobs are taken, to a greater extent than elsewhere, by local people.

Earnings

- 14.87 Appendix 14.12 sets out data for earnings, for Vale Royal and Macclesfield Boroughs with the North West region and Great Britain for comparison. The figures are the latest available, for 2008.
- 14.88 The first significant point is that earnings for both men and women resident in the North West region are well below those for Great Britain. Earnings for men resident in Vale Royal are about 10% higher than the GB average and therefore the difference between these figures and the regional average is even greater. Earnings for women resident in Vale Royal are about the same as the regional average. Earnings for men resident in Macclesfield Borough are 30% higher than the GB average, partly reflecting the Borough's role (notwithstanding the net inflow of workers discussed above) as part of Manchester's commuter belt and the

availability of highly paid white collar work in the conurbation. Earnings for women resident in Macclesfield Borough are also higher than the GB and regional averages.

- 14.89 Turning to the workplace figures, there is as would be expected no marked difference in the relationship between the regional and national figures. At the local level, however, there are marked differences. Earnings for people working in both boroughs are lower than for residents, in Vale Royal to an extent that brings earnings for men down to about 14% lower than the GB average and lower even than the regional average. Earnings for women working in Vale Royal are lower still, at 84% of the GB average. Earnings for men working in Macclesfield Borough are slightly higher than the GB average, and those for women about the same.

Job Density

- 14.90 Appendix 14.13 sets out figures for job density for the six former Cheshire districts, along with figures for the North West region and Great Britain. Job density is the ratio of jobs in an area to its resident population of working age. Since the latter includes economically inactive people well as active ones, the ratio for Great Britain, and for most local authority areas, is less than one.
- 14.91 The table shows that Chester and Macclesfield had job densities above one, reflecting their strength as employment centres. The figure for Crewe and Nantwich (0.88) was identical to that for Cheshire as a whole and for Great Britain, but the other three districts including Vale Royal had figures of around 0.70. These data are consistent with those for travel to work above and again reflect the extent to which residents of Vale Royal Borough depend on jobs elsewhere.

Indices of Multiple Deprivation

- 14.92 Indices of Multiple Deprivation (IMD) measure deprivation in England using Census and other data under seven domains: income, employment, health, education, housing crime and living conditions.
- 14.93 The latest indices are for 2007. They show that Vale Royal Borough was ranked 196 (in average score) out of 353 local authority areas in England, where 1 is the most deprived and 353 the least deprived. In the local context, Ellesmere Port and Neston and Chester ranked slightly higher (147 and 184 respectively) and the other three districts lower. There were no significant differences in the rankings for Vale Royal for the individual domains. It is concluded that deprivation is not a major issue in Vale Royal.

Amenity

- 14.94 A public right of way runs along the western bank of the Trent and Mersey Canal adjacent to the project site. It forms part of the Cheshire Ring Canal Walk, a waymarked long distance path of 158 km (98 miles) in Cheshire, Greater Manchester and Staffordshire, following the

towpaths of six canals of various ages and character. The eastern edge of the proposed development adjoins the canal for an estimated distance of 270 metres; further north, the site of the proposed relocated coke store adjoins the towpath for an estimated distance of 140 metres.

- 14.95 Another public footpath connects the towpath close to the site of the proposed coke store with the A559 Manchester Road. A third footpath connects the C class road running parallel and to the east of the A530, south of the Wade Brook, with the A530 itself. The public rights of way network in the vicinity is otherwise sparse.
- 14.96 The Trent and Mersey Canal connects those two rivers over a distance of about 145 km (90 miles). It opened in 1777. Over most of its length, including at this point, it is a 'narrow canal' whose locks and bridges can accommodate narrow boats up to 22 metres long and 2.13 metres wide. It is now little if at all used for the transport of goods but is well used for leisure purposes.
- 14.97 Griffith's Park is a substantial area of open space located to the west of the site of the proposed development. Its closest point is the north-east corner at a distance of about 200 metres from the site. It largely consists of rough grassland with a scattering of small trees including hawthorn and birch.
- 14.98 The park is privately owned, but the public has access to it. A play area is provided but the park is mainly used for informal recreation. It is understood that some park maintenance is undertaken by Rudheath Parish Council.

Brunner Mond - Employment Context

- 14.99 Brunner Mond employs 500 people directly and provides pensions for 800 retired employees. In addition it is estimated that Brunner Mond support approximately 3,500 indirect jobs in the supply chain for the supply of raw materials, finished goods and local services. They are the only sodium carbonate (soda ash) manufacturer in Britain. Brunner Mond supplies the glass industry primarily in Lancashire, Yorkshire and in Scotland, (soda ash is about 40% of the ingredients for glass making) and also supplies the detergents industry which located largely in the North West. Brunner Mond is also the only manufacturer of sodium bicarbonate (baking soda) in Britain. Sodium bicarbonate is an ingredient in both animal and human food, it is used in indigestion remedies, in kidney dialysis and increasingly in flue gas treatment. The bicarbonate business is a global business serving over 600 customers in over 50 countries worldwide. The proposed project would be able to utilise sodium bicarbonate from the Brunner Mond processes.

Baseline Conditions: Summary

- 14.100 The area formerly known as Vale Royal Borough, and some of the other local areas for which data are presented, display characteristics (for example, in health, occupation, industry and economic activity rates) which are similar to those for England and Wales.

- 14.101 In contrast, the more distinctive local characteristics are shown by the data for car ownership and the various data sets on travel to work. The area in which the project site is located is centrally placed in a part of the North West region within relatively easy reach of Liverpool and Manchester. In terms of travel to work, there is considerable interaction between adjoining and nearby authorities. However, Vale Royal itself depends heavily on other areas for jobs, as shown by the high level of net out commuting, equivalent to nearly 19% of the total resident workforce. It can also be inferred from the figures for mode of travel to work that the public transport system is not well equipped to provide for a complex pattern of often relatively small flows (say from one district to another). The area is heavily car dependent.
- 14.102 Like nearly all parts of Britain, the area has experienced a rapid increase in unemployment in the last 12 to 18 months.
- 14.103 Appendix 14.12 shows that earnings among residents in the area are relatively high; but it is significant that earnings among those working in Vale Royal Borough are lower than the regional average. It can therefore also be concluded that the high levels of car ownership shown in Appendix 14.3 are explained by need as well as affluence.
- 14.104 Brunner Mond it is a large and significant employer as well as supplying important products to the glass, pharmaceutical and other industries.
- 14.105 Turning to amenity, the part of Cheshire in which the proposed development is located is fairly heavily industrialised, contains relatively little of historic interest to attract the visitor (compared, say, to Chester), and is not an area of attractive landscapes covered by national or even local designations. The amenity issues are therefore considered to be confined to those arising from the usage of the Trent and Mersey Canal and its towpath.

Construction Assessment

SEP

- 14.106 As indicated above about 17,000 people work in the construction industry in Cheshire. It is also estimated that a catchment area for specialist construction workers travelling daily is represented by approximately ninety minutes driving time. A 90 minute isochrone centred on Northwich extends further north than Lancaster and as far south as Birmingham; by definition then the catchment area thus defined includes Liverpool, Manchester and other major towns and cities in Greater Manchester and Lancashire such as Wigan, Preston and Blackburn. The Labour Market Profiles show that in 2007 there were in Cheshire, Merseyside, Greater Manchester, Lancashire, Staffordshire and the West Midlands about 230,000 employees in the construction industry.
- 14.107 This compares with the estimate of a maximum of 500 contractors being employed in the construction of this scheme from its anticipated start in 2011 to completion in 2015, a period of about three and a half years. It should be noted that in this particular case a substantial

amount of demolition will have to be carried out to clear the site before construction can begin. Demolition requires specialist skills and there are a relatively small number of specialist companies in this subsector. Other things being equal, labour at this particular stage is likely to be drawn from a wider rather than the local area.

- 14.108 The main uncertainty in terms of the effects in the construction stage concerns the placing of contracts for construction and the extent to which labour, particularly specialist skills, are brought in from elsewhere, and conversely the extent to which local construction workers obtain employment. The Construction Environmental Management Plan for the project would encourage contractors to make use of the local workforce wherever possible.
- 14.109 Many other forms of development, including housing, offices, retail development, schools and health care facilities, will employ significant numbers of people whose skills relate to finishing, such as plumbers, carpenters and joiners, electricians and plasterers. Given the widespread availability of skilled workers in all these occupations, a significant proportion of the labour force in the later stages of a conventional construction project is likely to be drawn from the locality. However, given the unusual and specialist nature of this project, there is likely to be less demand for these skill sets.
- 14.110 Thus although the provision of a wide range of construction jobs will undoubtedly be beneficial to the local economy, the scale of that benefit is difficult to assess, and so too therefore will any multiplier effect on the local economy.
- 14.111 Using the definitions of significance set out in paragraph 14.17, it is concluded that the effect of the proposed development in construction stage in terms of employment will be minor to moderate beneficial. Given the likely demand for labour in relation to its supply in the region, there are likely to be no adverse effects in terms of the overheating of the local economy.
- 14.112 In relation to the use made of the canal towpath and the canal itself, it is estimated that the 270 metre boundary of the main part of the proposed development represents less than 4 minutes walk at a speed of 1.2 metres per second, equivalent to 4.32 kilometres per hour, and less than two minutes travel at the recommended speed for narrowboats. The construction phase would result in construction activity on land in close proximity to the canal and towpath. Changes to the amenity or relative pleasantness of this path during construction are informed by the findings of the assessments for views, noise and air (dust). The path and canal would remain open during the construction phase although there would be a change to the amenity of a relatively short section of both with a temporary adverse effect of minor/moderate significance.
- 14.113 Griffith's Park is approximately 200 m from the site. The landscape and visual assessment finds that there would be open views of the works during the construction stage. The effects of noise and dust would be minimised by the preventative measures set out in Chapters 3, 7 and 12. The change to the amenity of Griffith's Park during construction would result in an adverse effect of minor significance.

14.114 In the light of the above it is concluded that the project is unlikely to have any adverse impact on the propensity to use either the towpath or the canal itself for leisure purposes. Its effects are therefore neutral.

Grid Connection

14.115 Some employment will necessarily arise out of the construction of the grid connection. This will lead to a minor beneficial effect. During construction however, there may be minor disturbance whilst laying cables to users of the highway, including cyclists. These effects are likely to be in the form of minor delays and/or diversions, but temporary in nature. Overall this is considered to result in a minor adverse effect.

Operational Assessment

SEP

14.116 The project is expected to provide about 50 full time jobs comprising operator shift staff, maintenance employees, weighbridge operators, clerical and administrative staff and plant management.

14.117 Since the plant would operate 24 hours a day, a shift pattern of work will operate for key employees. An average of 100 contractors will be employed for planned shutdowns.

14.118 Thus the proposed development would provide a relatively modest but nonetheless significant number of jobs, including manual employment of a skilled and semi-skilled nature.

14.119 It cannot be predicted with any certainty where staff in each category will be drawn from, in view of the relatively unconstrained labour market which operates in the United Kingdom. It is significant for example that the 2001 Census employed greater distance bands (up to 'over 60km') than the 1991 Census (up to 'over 40km'), although this reveals nothing about the extent to which this is a matter of choice, or is on the other hand forced on people, for example having to travel further to seek employment following redundancy. The review of baseline conditions has shown the significant proportion of long distance travel to work in this part of the North West region, and also the high levels of car ownership and use for travel to work. Although distance and mode are not cross tabulated in the Census, it can reasonably be inferred that there is a strong correlation between the two. There is therefore no guarantee that the occupants of the jobs created in the operational stage will live close to the plant, although it is likely that the catchment area will be smaller than that for the jobs created in the construction phase. Brunner Mond itself states that the majority of its workforce lives in the immediate areas around its two plants.

14.120 Nevertheless, given the circumstances of the area, in which a significant proportion of the working population of the former Vale Royal Borough obtains its employment elsewhere, the creation of any employment locally will be of significant benefit. Although it is acknowledged that by the time the development is brought into operation in 2015 it is possible that nationally

economic conditions may have improved, the worsening of the unemployment figures described above makes the creation of jobs locally even more important.

- 14.121 Using the definitions of significance set out in paragraph 14.17, it is therefore concluded that the effect of the project in the operational stage in terms of employment would be minor beneficial. Again given the likely demand for labour in relation to its supply in the immediately surrounding area, there are likely to be no adverse effects in terms of the overheating of the local economy.
- 14.122 Turning to indirect effects, the proposed development is likely to have a beneficial effect on employment in the waste management industry in terms of underpinning the market involved in the collection, preparation and transport of refuse derived fuel.
- 14.123 The operation of the proposed development will also produce a significant quantity of combustion residues (bottom ash). Depending on the exact composition of the fuel stock at any one time, the percentage by weight of bottom ash of the throughput would vary slightly but on average is estimated to be about 20%. On the basis of an annual throughput of 600,000 tonnes, therefore, 120,000 tonnes of bottom ash can be expected. The bottom ash is not immediately suitable for reuse, but once the proposed development is operational and the first batches of bottom ash have matured there would be a continuous supply. There is an increasing expectation that this residue be recycled to manufacture building materials. The destination of the bottom ash is uncertain at the time of the submission but would have a minor beneficial effect in creating or at least sustaining employment in the companies which handle it.
- 14.124 Much of the chemicals industry including the manufacture of soda ash is highly energy intensive, and energy represents a higher proportion of costs than in many other manufacturing industries. Leaving aside any benefits to the environment arising from a reduced reliance on fossil fuels, the project would help to ensure Brunner Mond's continuing viability and therefore its position as a mainstay of the local and wider economy. This is considered to be an effect of moderate beneficial significance.

Amenity

- 14.125 As discussed above for the construction phase, it is estimated that the 270 metre boundary of the main part of the project represents less than four minutes walk and less than two minutes travel at the recommended speed for narrow boats.
- 14.126 The proposed structures on the main project site would be large. However, it is also considered that the project would constitute a visual improvement on what currently occupies the site due to replacing redundant buildings with new modern buildings. The landscape and visual assessment reports a neutral to minor beneficial effect on the view from the footpath due to the improvement when compared to the existing works.

14.127 In the light of the above it is concluded that the project is unlikely to have any adverse impact on the propensity to use either the towpath or the canal itself for leisure purposes. Its effects are therefore neutral.

14.128 It is also concluded that the project is unlikely to have any adverse effect on the propensity to use and enjoy the amenity offered by Griffith's Park. The effect is considered to be neutral.

Grid Connection

14.129 The grid connection would not give rise to any direct employment effects in the operational phase as such, although a contribution towards the country's electricity resource from renewable sources is considered to be a major beneficial effect of the project.

Decommissioning

14.130 As indicated elsewhere, the expected life of the proposed development is thirty years. Decommissioning is likely to involve the demolition and removal of all the structures now proposed, to enable further redevelopment of the site to take place. The economic effects of decommissioning are likely to be similar those in the demolition period beginning the construction phase of the proposed development; that is, to provide employment for specialist companies over a period of a few months. Insofar as such effects so far into the future can be assessed, they are likely to be minor beneficial.

Cumulative Effects

14.131 Potential cumulative effects were identified above at paragraph 14.21 as relating to the construction labour market. Because of the wide catchment area from which construction labour is expected to be drawn, and the very large numbers of people in the construction industry in that area, it is concluded that there are unlikely to be any significant adverse cumulative effects arising from the potential construction of other proposed or consented schemes at around the same time. The provision of employment associated with other developments together with this scheme is likely to be a beneficial effect.

Conclusion

14.132 The area in which the project is located lies slightly below the median in terms of the Indices of Multiple Deprivation, measures which summarise much relevant Census data and also other information, for example about crime, from other sources. This is broadly corroborated by the analysis above of more specific Census data sets and other sources. What used to be known as Vale Royal Borough has experienced a marked increase in unemployment in recent months, but this is also true of all other parts of Britain, and broadly speaking the areas of highest unemployment in relative terms remain the same. Vale Royal, as has been made clear above, does not fall into this category.

14.133 At the same time, however, the local economy does exhibit the following features: a high level of out commuting and relatively low levels of earnings for the workforce employed locally;

resident earnings are higher, but almost certainly because higher earning residents work elsewhere. In the circumstances, therefore, the creation of even a relatively modest number of jobs in both the construction and operational stages of the proposed development will be of benefit to the local economy.

- 14.134 Investment in the proposed SEP as planned will help reduce fuel costs and in turn sustain the Brunner Mond business, its present and past employees, as well as related industries that rely on the products it produces.
- 14.135 In terms of social effects, amenity has been considered insofar as it relates to effects of users of the Trent and Mersey Canal, the long distance footpath on the towpath on the canal's west bank and effects on Griffith's Park. Whilst there would be potential for temporary adverse effects on the amenity, or relative pleasantness, of the canal, canal path and Griffith's Park during construction, preventative measures to minimise effects regarding noise and dust are set out in Chapters 7 and 12.
- 14.136 The assessment has not covered potential effects on health. These effects are covered separately within the air quality chapter of this ES and in the Health Impact Assessment submitted with the application. Separate chapters in this ES cover other social aspects of the project such as, landscape and visual impact, noise and odour.