

14.0 SOCIO-ECONOMIC IMPACTS

Introduction

- 14.1 The principle of sustainability is relevant not only to environmental issues but also to the implications for social and economic issues. The existing landfill and HWRC development would continue with no change to their existing employment and investment levels therefore no change to the permitted baseline is predicted in respect of these developments. The main purpose, therefore, of this socio-economic impact assessment (SEIA) is to identify the potential impacts of the EfW facility on the social and economic environment. An SEIA is used to identify the likely impacts caused by a proposed development, and the positive and negative responses if the development occurs.
- 14.2 The following socio-economic assessment enables the Applicant to consider these issues as an integral part of the EfW development. The assessment therefore considers the potential benefits and costs of the development and suggests mitigation measures where relevant.
- 14.3 This SEIA is based on a 5km study area from the proposed development site, incorporating the lower layer super output areas of the Cherwell District (Cherwell 10C, Cherwell 10D, Cherwell 11B and Cherwell 16A).

Methodology

- 14.4 There are a range of factors affecting human beings that could be influenced by the construction and operation of a development. The most integral factors are the economy, employment and quality of life. These factors have been considered to assess the proposed impacts caused during the construction and operational phase of the development.
- 14.5 Due to the time scale of this SEIA, secondary information has been used to establish a baseline profile, the majority of data used has been taken from 2001 Census data for the Lower Layer Super Output Areas (LSOA) within the study area and information from the Cherwell District council website (www.cherwell-dc.gov.uk). LSOAs have been designed to improve the reporting of statistics of small areas throughout England and Wales. An LSOA is an area that has been defined in the 2001 Census; the area is constrained by the boundary of the wards and typically consists of a population of 1500.

Planning Framework

- 14.6 The core strategy developed by Cherwell District Council has been considered during the socio-economic impact assessment.

Cherwell District Core Strategy 2006 – 2026

14.7 Cherwell District is a largely rural area situated in North Oxfordshire. The proposed EfW facility is situated in the south east corner of the District. The study area of 5km from the site accounts for four of Cherwell District's lower layer super output areas. The town of Bicester is on the 5km boundary of the study area, and as one of three main population centres in Cherwell it has been included in this study as the development of the proposed EfW facility may have some socio-economic implications.

14.8 The five key issues that have been recognised in the Cherwell District Core strategy 2006 – 2026 are:

- the need to ensure convenient access to services and facilities: Due to the rural nature of the Cherwell District the council has recognised the importance of having easily accessible provisions to the population of Cherwell. Health care, social care, community, education, transport, open space and recreation facilities have all been identified in the Core strategy;
- the need to enhance and protect Cherwell's built and natural environment: The importance of preserving the historical and the natural environment of Cherwell, emphasis has been made on the preservation of the Oxford green belt. This issue also recognises the importance of various forms of pollution including light noise, physical, air quality and water quality;
- The need to promote a prosperous and sustainable economy: Cherwell council have identified two major sources of developing and sustaining a successful economy, these are through tourism and accommodating economic growth in urban and rural locations;
- The need to ensure fully and timely provision of housing, including affordable housing: The issue highlights the securing of adequate affordable housing and housing provisions, the efficient use of land and using brown field site effectively.
- The need to promote the role of town centres and local shopping promote: Cherwell District has three main centres (Bicester, Banbury and Kidlington) the district council has identified the growth of these main centres through retail and commercial activity and also highlighted the importance of growing other smaller centres.

Baseline Description

Baseline profile

14.9 The purpose of this section is to identify the socio-economic profile of the areas within a 5km radius of the proposed EfW facility in Ardley. There are four lower layer super output areas within the study area these are The Aston and Heyfords 010C, The Aston and Heyfords 010D, Caversfield 011B and Ambrosden and Chesterton 016A. Although the town of Bicester is not within

SOCIO-ECONOMIC IMPACTS 14

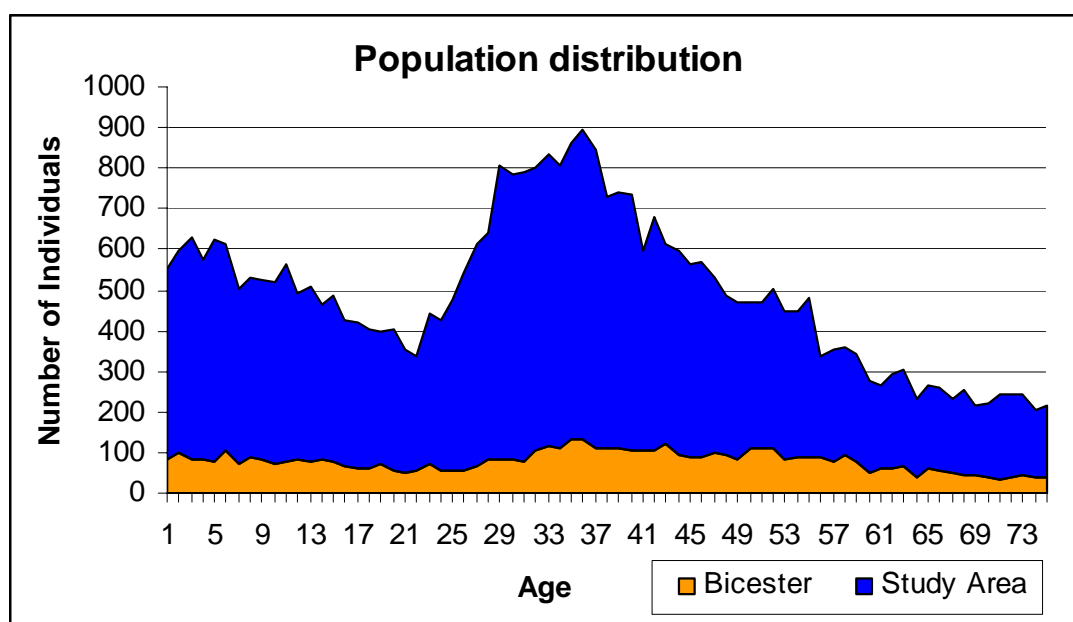
the study area it is close enough to have socio-economic implications from the development of the proposed EfW facility.

14.10 A range of baseline information has been compiled to highlight the socio-economic profile of the surrounding area, these include:

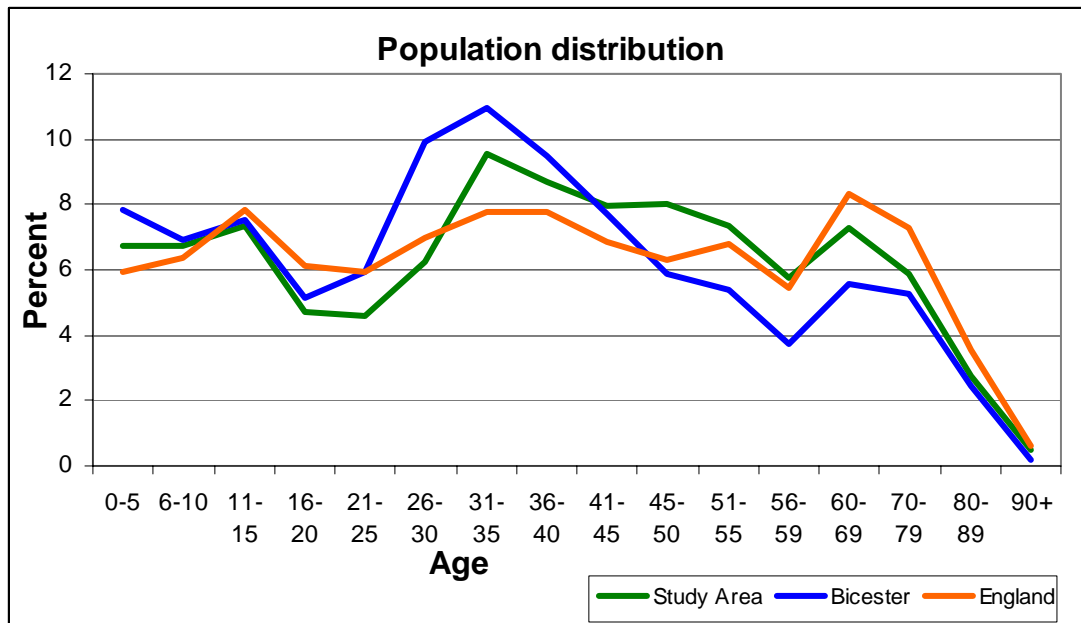
- Population
- Land use
- Employment
- Economic Activity
- Occupation
- Unemployment
- Regeneration
- Transport and Infrastructure
- Leisure and Tourism

Population

14.11 The total population for the study area is 6,275, of which 3,119 are male and 3,156 are female. The population for Bicester town is 32,744 with 16,029 males and 16,715 females; Figure 1 shows the distribution for the population within the study area and within the nearest town of Bicester.



14.12 Figure 2 highlights the similarities and differences of percentage population between the study area, Bicester and England. The pattern of population distribution is similar between each area, the most noticeable difference is the considerably higher percentage of 26 – 35 in Bicester, with 20.89% of the population within this age category compared to the national average of 14.75%

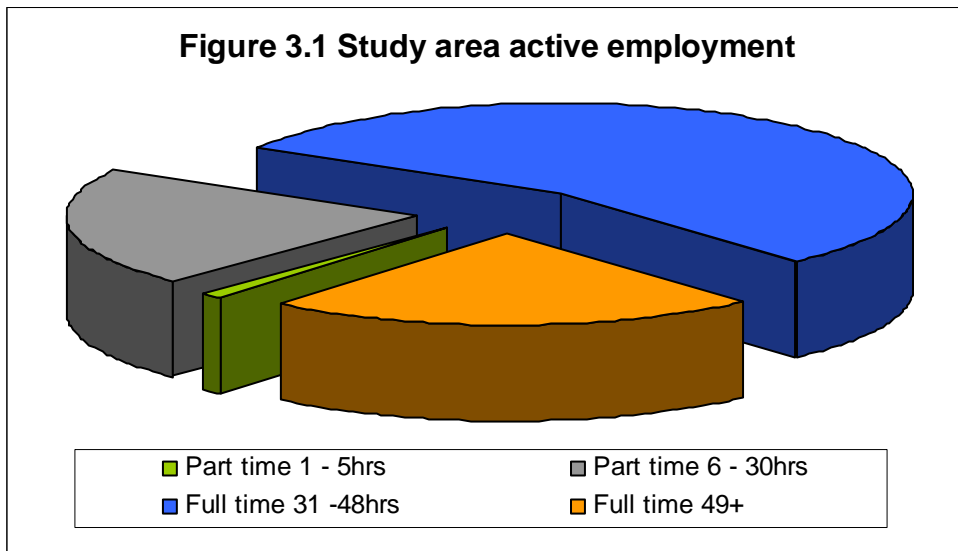


Land Use

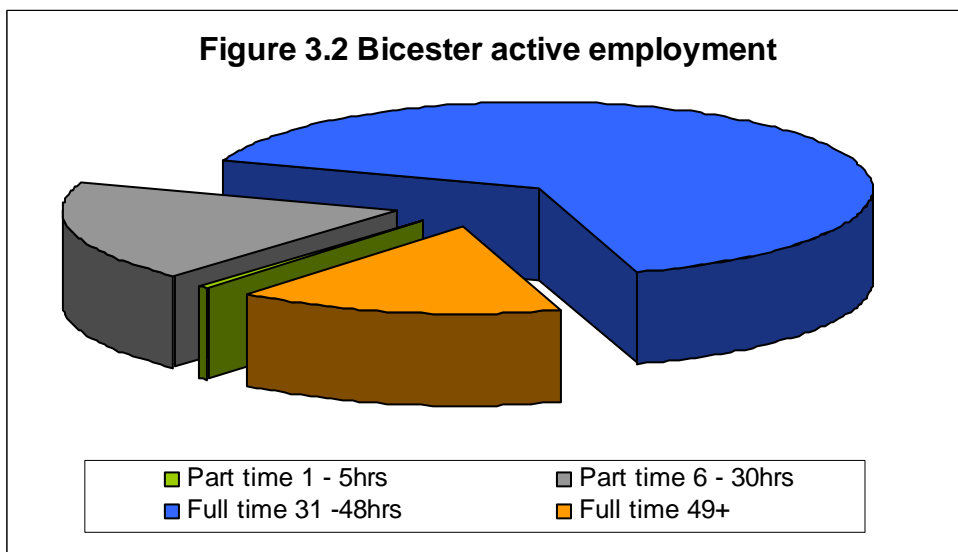
- 14.13 The study area is situated in a largely rural area so farming accounts for majority of land use around the site and there are a number of farm owners within 5km of the site. The former Upper Heyford airbase is situated 1.5 north-west of the site. The site situated between the M40, to the east, and the B430 to the west, the 5km study is serviced by a transport network of B and A roads.
- 14.14 Despite the study area being situated in an essentially rural area there are hotspots of residential land use. A number of villages surround the site with the villages of, Ardley 1.0km to the North, Bucknell 1.2km To the East, Middleton Stoney 1.7km to the South and Upper Heyford 2.2km to the West. The town of Bicester lies around 4km south east of the site, with the land use principally residential but also includes a small proportion of retail and commercial land use.

Economic Activity

- 14.15 The 2001 census data shows the amount of the population within working age (16 – 74) are in active employment, be it full time or part time. The national average for people active employment is 66.86%, the average for the stud area and Bicester is considerably higher with 77.26% and 79.74% respectively actively employed. Figure 3.1 (Study area) and figure 3.2 (Bicester) shows the percentage of active population in full time or part time employment and the hours worked.



14.16 The amount of people in active employment who work full time in the study area is 77.82% and in Bicester is 80.97% both are higher than the national average of 75.35%.



14.17 The biggest employer in the study area and Bicester is the wholesale and retail trade (eg Bicester village shopping outlet), the percentage of employed residents from the study area employed in the retail industry is lower than that of Bicester which is to be expected as the study is a rural area and will not offer the same employment opportunities. This same reason will account for the 4.27% employed in the agriculture and forestry sector company to that of Bicester of 0.9% and the national average of 1.45%.

14.18 The census data for the employment industry is very similar to the national average, with wholesale and retail sector employing 16.86% in the study area and 16.85% nationally, manufacturing employing 14.32% in the study area and 14.83% nationally and construction employing 6.73% in the study area and 6.76% nationally. The major difference is the employment within the real

SOCIO-ECONOMIC IMPACTS 14

estate sector, this accounts for 15.30% of the employment in the study area and 14.07% in Bicester compared to 13.21% of employment nationally.

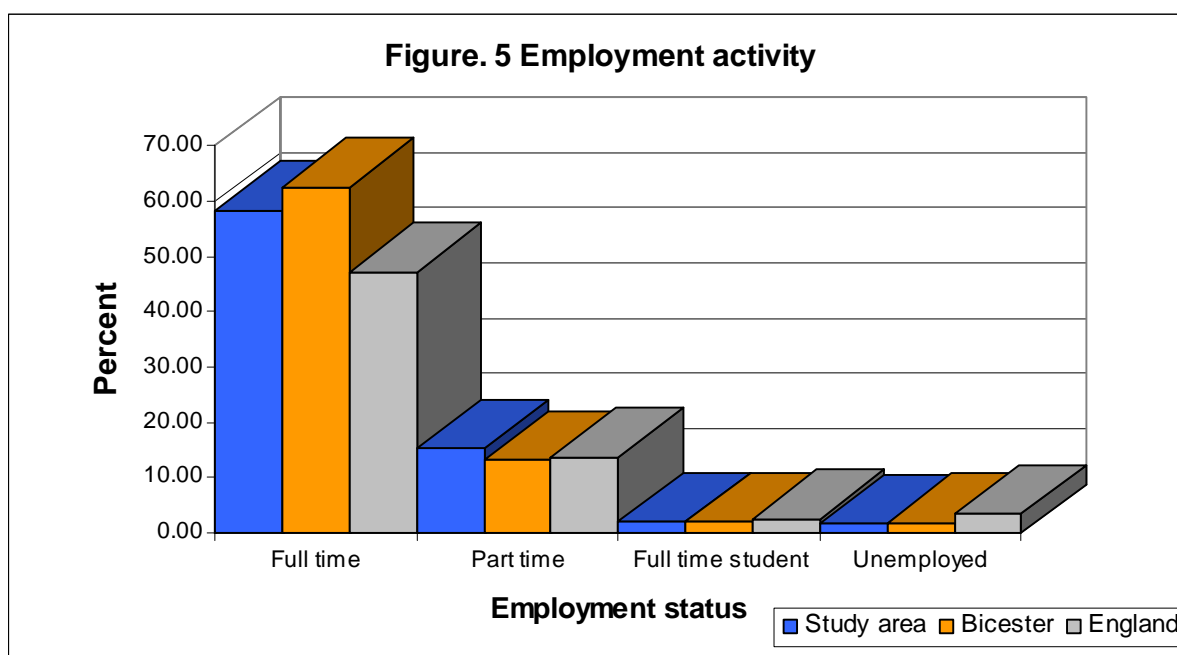
14.19 Table 1 shows the percentage of employment within industries and compares the study area and Bicester to the average to Cherwell and the national average.

Employment sector	Study Area	Bicester	Cherwell	England
Agriculture, hunting and forestry	4.27	0.9	1.79	1.45
Fishing	0	0	0	0.02
Mining and quarrying	0.09	0.06	0.12	0.25
Manufacturing	14.32	16.09	17.35	14.83
Electricity, gas and water supply	0.29	0.44	0.47	0.71
Construction	6.73	6.54	6.66	6.76
Wholesale and retail trade, repairs	16.86	20.25	18.7	16.85
Hotels and restaurants	4.13	3.11	3.65	4.73
Transport, storage and communications	7.45	7.2	6.7	7.09
Financial intermediation	2.19	2.62	2.64	4.8
Real estate, renting and business activities	15.3	14.07	13.55	13.21
Public administration and defence, social security	7.07	10.68	7.01	5.66
Education	7.51	5.52	7.53	7.74
Health and social work	8.92	8.02	9.12	10.7
Other community, social and personal service activities	4.48	4.32	4.44	5.04
Private households with employed persons	0.17	0.11	0.13	0.1
Extra-territorial organisations and bodies	0.2	0.06	0.13	0.06

Unemployment

14.20 The economic activity data from 2001 census shows the percent of all people aged 16 – 74 that are able to participate in active employment. The data from this has been summarised in figure 5, the results show a difference between percentage in fulltime employment and a difference between the unemployed with the national average of 3.85% compared to the study area 1.63% and Bicester 1.84%.

SOCIO-ECONOMIC IMPACTS 14



14.21 Although the unemployment levels for the study area and the town of Bicester are considerably lower than the national average further information can be used to see the amount of time since the unemployed population last worked. The data showed that 51.73% of the unemployed population in the study area have either never worked or last worked over ten years prior to the census. This is a similar result for the town of Bicester with 47.8% of the unemployed population never been in employment or last employed over ten years prior to the census.

Index of Multiple Deprivation – Income

14.22 Although there is no readily available information on income for the individual electoral districts there has been a study undertaken to identify the deprivation of an area throughout Wales. The Index of Multiple Deprivation (IMD) maps areas of England are based on housing of 1000 to 1500, these are referred to as Lower Layer Super Output Areas (LSOA). The information is compiled primarily from the 2001 Census data and is a collaboration of seven forms of deprivation these are:

- Employment;
- Health;
- Income;
- Education;
- Access to services;
- Housing;
- Physical environment.

14.23 As there is no other reliable form of income data for the study area, the income data generated through the Index of Multiple Deprivation can be used to identify areas that are economically deprived. The income data has been generated from the following data, income-based job seekers allowance,

SOCIO-ECONOMIC IMPACTS 14

Working Families in Tax Credit, Disabled Persons Tax Credit and Income Support claimants.

- 14.24 The IMD generated income data (Table.2) for the study area (blue) and for the town of Bicester (black) shows the ranking of the LSOA. Compared to national averages all but three LSOA's are ranked in the top half of the table, with nine LSOA's ranked in the top 10% of least income deprived areas.
- 14.25 This makes for good reading but when compared to the averages for Oxfordshire nine of the LSOA's are within the top 50% of income deprived areas, three of which are in the top 20% of income deprived areas in Oxfordshire.

LSOA	Income score	Rank in Oxfordshire	% Rank in Oxfordshire	Rank of income Nationally	% Rank Nationally
Bicester West 014D	0.16	43	11	11940	36.76
Bicester East 013D	0.14	57	14	13699	42.17
Bicester Town 014A	0.12	77	19	15982	49.2
Bicester Town 015D	0.11	86	21	16568	51.01
Bicester East 013B	0.09	122	30	19062	58.68
Bicester West 014C	0.08	147	36	21244	65.4
Bicester South 015A	0.07	170	42	23556	72.52
The Astons and Heyfords 010C	0.06	186	46	24385	75.07
The Astons and Heyfords 010D	0.06	198	49	24792	76.33
Bicester North 012D	0.06	229	56.68	25798	79.42
Bicester Town 013E	0.05	246	61	26600	81.89
Bicester West 014B	0.05	249	62	26866	82.71
Bicester North 012C	0.05	264	65	27182	83.68
Caversfield 011B	0.05	267	66	27264	83.94
Bicester North 012B	0.04	309	76	29270	90.11
Bicester North 012A	0.04	314	78	29525	90.9
Bicester South 015B	0.04	325	80	29823	91.81
Bicester East 013A	0.04	327	81	29899	92.05
Bicester West 014E	0.03	364	90	31242	96.18
Bicester West 014F	0.03	366	91	31283	96.31
Bicester South 015C	0.03	370	92	31422	96.74
Bicester East 013C	0.03	379	94	31654	97.45
Ambrosden and Chesterton 016A	0.02	384	95	31892	98.18

Cherwell Community Plan 2006 – 2011, Vision 2016

- 14.26 'The Community Plan is the Strategy of the Cherwell Community Planning Partnership, which aims to improve the quality of life for all those who work, live and visit the Cherwell District area. The Cherwell Community Planning Partnership is made up of diverse organisations who have agreed common aims and actions to improve the economic, social and environmental well-being within the Cherwell District.'
- 14.27 The Cherwell Community Plan 2006-2011 identified 10 themes that need to be addressed by 2016, the most relevant to the study area are:

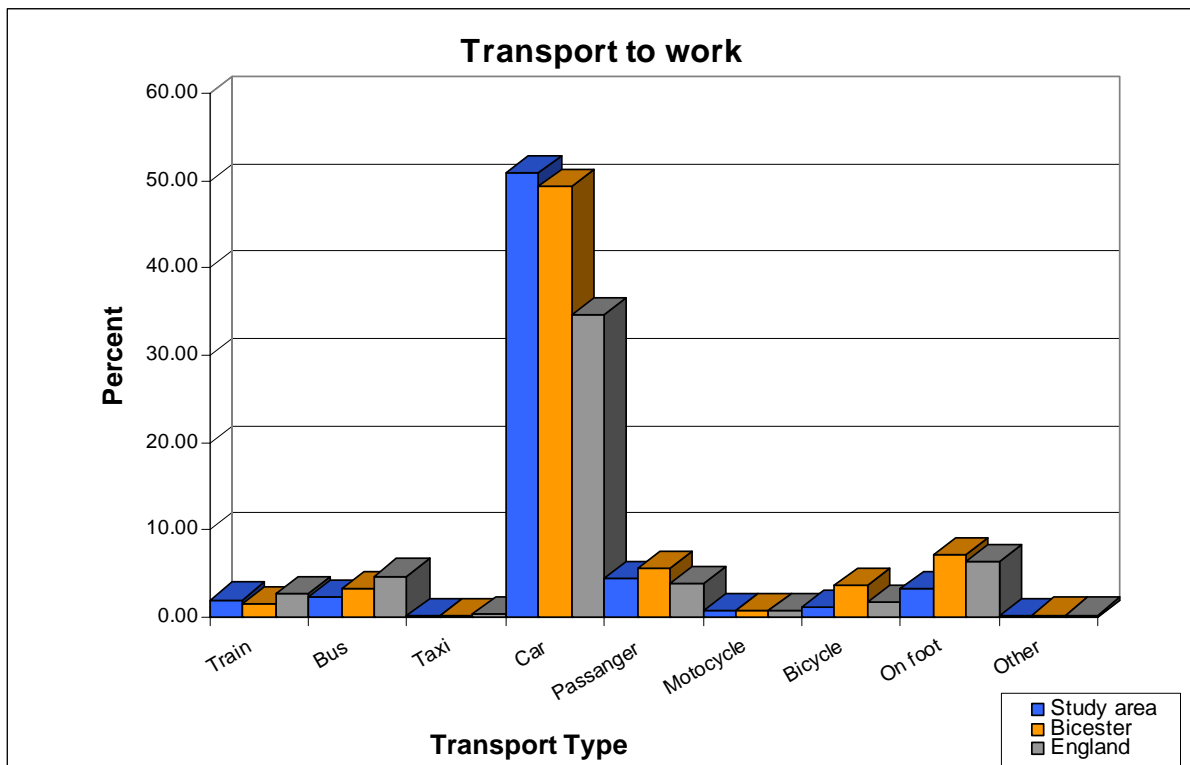
SOCIO-ECONOMIC IMPACTS 14

- The local environment: Cherwell DC is largely made up of rural land therefore it is imperative that the Council creates a balance between economic and population with impacts on the local environment. The key actions to 2011 include working to increase recycling, reduce pollution, facilitate the development of renewable energy projects and increase environmental awareness;
- Economic drive: As an area Cherwell has a relatively high rate of employment and young population, although at present the employment is good the Community plan has highlighted the importance of maintaining these trends for future years. The key aims of the Community plan are to promote a sustainable economy, provide the relevant skills and experience to the employees and ultimately create 6,200 net new jobs by 2011;
- Rural issues: With 35% of population living in rural communities of around 500 residents, the importance of community development within the rural setting of Cherwell is evident. The main aims of the Community Plan are to encourage village communities, maintain rural services, support the churning rural economy and preserve the rural environment;

Transport

14.28 The 2001 census identified the mode of transport that people aged 16-74 use to get to and from work. The majority of people in the study area and Bicester used a car as their primary mode of transport to get to work, the percentage of people using cars was higher for the study area (50.88%) and Bicester (49.31%) was considerably higher than the national average of 34.68%. The census data also shows a lower percentage of resident in the study area compared to Bicester and England used public transport, walked or travelled to work on foot. The reason for this would be due to the rural setting of the study area, the lack of public transport and the proximity of the jobs to the residential areas.

SOCIO-ECONOMIC IMPACTS 14



Leisure & Tourism

14.29 Although there no readily accessible tourist data available for the study area, there are a number of leisure and tourism facilities within the study area.

Impact assessment

Land use

14.30 The EfW will produce in the region of 180,000 Megawatt hours of electricity a year to the National Grid. The by product of heat from the steam also has the potential to be harnessed and used as a source of heat which can be supplied to anywhere within 5km, provided it is economically viable (more detail of this is included in Appendix 4.

Economic Activity

14.31 Based on previous similar EfW projects under taken by Viridor the development of the EfW facility is expected to cost £140 million and will take two years to complete. The site is expected to generate work for 150 to 200 workers per day during the construction phase and once the facility has been completed it is expected to provide permanent work for up to 50 workers.

14.32 Due to the magnitude of this project the employment of the local population will be used whenever possible. Although the local employment rate in the study area and in Bicester is lower that national average, their

SOCIO-ECONOMIC IMPACTS 14

unemployment, rates were 1.8% at the time of the last census. The Core Strategy seeks to create an extra 6,200 jobs by 2011.

- 14.33 Evidence has shown that although the direct employment from incineration is low, indirect employment through recycling can be significant. A study by the Institute for Self-Reliance titled Recycling means Business, states that 'On a per-ton basis, sorting and processing recyclables alone sustains 10 times more jobs than landfilling or incineration'. Table 2 highlights the economic advantages to recycling waste, the table shows the amount of jobs created per 10,000 tonnes of waste a year.

Type of Operation	Jobs per 10,000 tonne pr/yr
Product Reuse	
Computer Reuse	296
Textile Reclamation	85
Misc. Durables Reuse	62
Wooden Pallet Repair	28
Conventional Materials Recovery Facilities	10
Composting	4
Landfill	1

Source: Institute for Self-Reliance 'Recycling means Business' 2007

- 14.34 With an increase of a temporary workforce of 150 to 200 people per year for 2 years and a permanent workforce of 50 people there is a potential for the increased spending in the local economy prompting growth and development within the service sector.
- 14.35 The development of an EfW facility may encourage the development of more associated recycling and recovery operations to the district of Cherwell.

Index of Multiple Deprivation - Income

- 14.36 The income data generated through the Index of Multiple Deprivation shows that the study area and the town of Bicester would not be considered deprived when compared to national statistics, although some of the Lower Super Output areas of Bicester are within the 20% most deprived areas in Oxfordshire. The potential exists to advertise for employees within the poorer performing LSOAs in Bicester in order to reduce the deprivation of these areas.

Cherwell Community Plan

- 14.37 The proposed EfW will have major implications of the Cherwell community Plan, especially with regards to the key aims for the local environment, economy and rural environment.
- 14.38 The local environment: One of the major emphases of the Cherwell Council is with regards to recycling, reducing waste and pollution. When a new

SOCIO-ECONOMIC IMPACTS 14

recycling scheme was introduced to the area of Cherwell in 2003 the recycling rate increased to over 40% and saw Cherwell District being recognised as a leading authority in recycling.

14.39 The development of an EfW facility will help to increase the diversion of waste from landfill in the area of not only Cherwell District but the whole of Oxfordshire. In addition, the potential exists for the proposed facility to generate significant energy which could benefit the surrounding land users.

14.40 Utilising the heat generated by the proposed EfW is explained within Appendix 4.

14.41 Benefits.

- the EfW facility incinerates residual materials which are non recyclable, thus reducing disposal to landfill;
- landfill tax is due to rise by £48 per tonne by April 2010; the development of the EfW facility will help reduce amount of landfill tax paid per year and help Cherwell and Oxfordshire meet the Landfill directive targets and avoid costly penalty fines;
- the site is situated close to the M40, providing excellent site access to the primary highway network;
- the facility will supply 180,000MW hours of electricity to the National Grid;
- the offer of a potentially lower cost form of heat to consumers within 5 km from the site;
- the potential to use the heat in new developments such as the Bicester eco-home development;
- the construction phase of the development is to last 2 years and will employ 150 to 200 workers a day;
- when operational, the facility will have 40 permanent members of staff, which will provide potential job opportunity's for local residents;
- the EfW facility may also provide indirect employment through the separation and processing of recyclable waste;
- the location of an EfW facility may help to encourage further economic growth to the area;
- by establishing a workforce, the local economy will benefit from local residents being employed and the workforce spending money on local services;

SOCIO-ECONOMIC IMPACTS 14

Evaluation

14.42 The potential implications of the proposed development have been highlighted in Table 3, with a tick indicating a benefit, a cross indicating a cost and a circle indication no cost or benefit to the District Core Strategy.

Table 3. The potential implications of the EfW Facility on Cherwell's District Core Strategy

Aim	Achieved	Comment
The need to ensure convenient access to services and facilities.	✓	Due to the offer of the Virdor landfill communities fund there is a potential for funds to be provided to help with the amenities of communities within 10 miles of the site.
The need to enhance and protect Cherwell's built and natural environment	✓	Due to the offer of the Virdor landfill communities fund there is a potential for funds to be provided to help with the protection and enhancement of the built environment of historical or architectural significance.
The need to promote a prosperous and sustainable economy	✓	The jobs created directly from the facility would contribute towards the target of Cherwell District council and there is potential for more indirect employment.
The need to ensure fully and timely provision of housing, including affordable housing	○	The development of the proposed EfW facility will have no implications for the housing sector.
The need to promote the role of town centres and local shopping facilities	○	The development of the proposed EfW facility will have not help or hinder the plans to promote local towns and shopping facilities.

Summary

14.43 The SEIA has considered the potential positive and negative social and economic impacts of the proposed Energy from Waste Facility at Ardley, Cherwell, on the community within 5km from the site.

14.44 The proposed development offers benefits to employment, the economy and tourism. The facility will help Oxfordshire meet its landfill directive targets and therefore avoid costly penalties. The EfW will help supply the national grid with 180,000 MW hours of electricity per year, and offers a potentially low cost form of heat to consumers which offsets the need for fossil fuels.

14.45 The overall socio economic impact of the proposed EfW will be positive; this is attributed to the significance of increased employment, the positive inputs to Cherwell District Core Strategy and improvement to the immediate economy of the area surrounding the site.