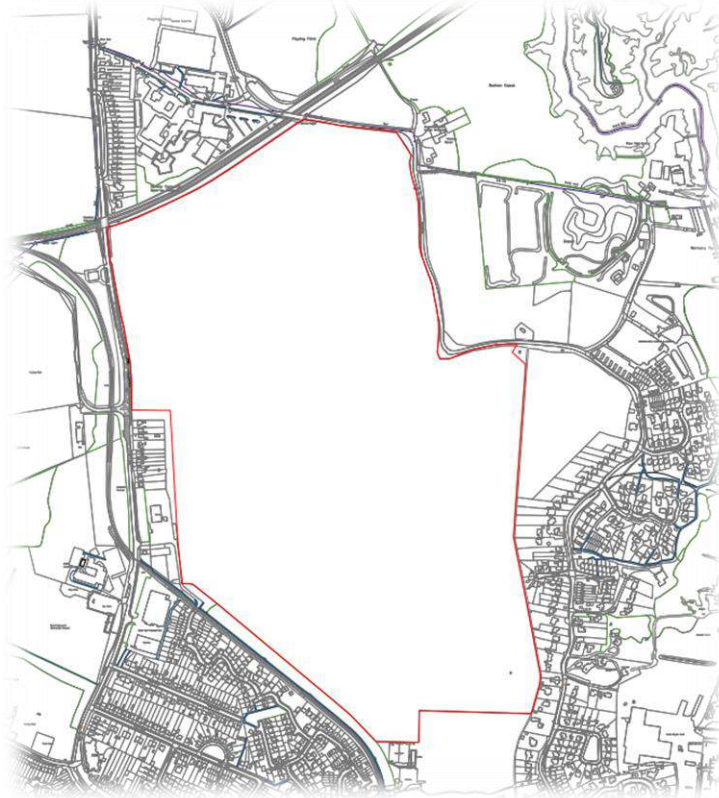


# Hamble Airfield, Hamble-le-Rice, Southampton, SO31 4HU



## Health Impact Assessment

784-B055346  
25<sup>th</sup> October 2023

### PRESENTED TO

---

**CEMEX**  
CEMEX House,  
Binley Business Park,  
Harry Weston Road, Binley,  
Coventry  
CV3 2TY

### PRESENTED BY

---

**NALO, Tetra Tech**  
3 Sovereign Square,  
Sovereign Street,  
Leeds,  
LS1 4ER

P: +44 (0) 113 278 7111  
E: [NALO.UK@tetrattech.com](mailto:NALO.UK@tetrattech.com)  
tetrattech.com

## DOCUMENT CONTROL

<b>Document:</b>	<b>Health Impact Assessment</b>
<b>Project:</b>	Hamble Airfield, Hamble-le-Rice, Southampton
<b>Client:</b>	CEMEX
<b>Job Number:</b>	784-B055346
<b>File Origin:</b>	\\lds-dc-vm-101\Data\Projects\784-B055346_Hamble_HIA

<b>Issue:</b>	<b>1</b>	<b>Status:</b>	<b>First Issue</b>
<b>Date:</b>	13 <sup>th</sup> October 2023		
<b>Prepared by:</b> Brad Bannister Environmental Consultant	<b>Checked by:</b> Matthew Smith Associate Environmental Consultant	<b>Approved By:</b> Nigel Mann Director	

<b>Issue:</b>	<b>2</b>	<b>Status:</b>	<b>Second Issue</b>
<b>Date:</b>	25 <sup>th</sup> October 2023		
<b>Prepared by:</b> Donald Towler-Tinlin Senior Environmental Consultant	<b>Checked by:</b> Dr Steve Himson Environmental Consultant	<b>Approved By:</b> Nigel Mann Director	
<b>Description of revision:</b> Minor amendments.			

<b>Issue:</b>		<b>Status:</b>	
<b>Date:</b>			
<b>Prepared by:</b>	<b>Checked by:</b>	<b>Approved By:</b>	
<b>Description of revision:</b>			

## EXECUTIVE SUMMARY

---

This report presents the findings of a Health Impact Assessment produced in support of an application for a proposed extraction of sand and gravel, with restoration to grazing land and recreation using imported inert restoration materials, the erection of associated plant and infrastructure and the creation of a new footpath and access onto Hamble Lane.

Promotion of healthy and safe communities which support the needs of local health and well-being has been a key consideration throughout the design of the scheme. In addition, the proposed development will provide a significant number of jobs, which is also a benefit to the area. Jobs will be created, both directly and indirectly, through the construction of the project.

A review of the potential for the development to have health effects on surrounding occupants has been undertaken. This assessment concludes that there are no significant adverse effects to health as a result of the scheme. In addition, the proposed development will provide a number of jobs, which is also provide a benefit to the area.

## TABLE OF CONTENTS

<b>1.0 INTRODUCTION</b> .....	<b>5</b>
<b>2.0 POLICY AND LEGISLATIVE CONTEXT</b> .....	<b>6</b>
2.1 Planning and Policy Guidance .....	6
<b>3.0 PUBLIC HEALTH PROFILE</b> .....	<b>9</b>
3.1 Lifestyles .....	10
3.2 Social and Community Influences on Health .....	10
3.3 Living / Environmental Conditions Affecting Health .....	10
3.4 Economic Conditions Affecting Health .....	13
3.5 Wellbeing .....	13
<b>4.0 ASSESSMENT METHODOLOGY</b> .....	<b>16</b>
4.1 Health Impact Assessment Approach and Methodology .....	16
4.2 Aims and Objectives of Health Impact Assessment .....	17
<b>5.0 ASSESSMENT OF EACH IDENTIFIED HEALTH DETERMINANT</b> .....	<b>20</b>
<b>6.0 CONCLUSIONS</b> .....	<b>27</b>

## LIST OF TABLES

<b>Table 3-1.</b> Office for National Statistics Data on Qualifications .....	14
<b>Table 3-2.</b> Office for National Statistics Wellbeing Survey 2020/2021 .....	15
<b>Table 4-1.</b> Health Determinants considered in the HIA.....	18
<b>Table 5-1.</b> Summary of Proposed Development.....	20
<b>Table 5-2.</b> Summary of Health Effects .....	21
<b>Table 5-3.</b> Rapid Health Impact Assessment.....	24

## APPENDICES

<b>APPENDIX A - REPORT TERMS &amp; CONDITIONS</b> .....	<b>28</b>
---	-----------

## 1.0 INTRODUCTION

Tetra Tech have undertaken a Health Impact Assessment (HIA) produced in support of an application for a proposed extraction of sand and gravel, with restoration to grazing land and recreation using imported inert restoration materials, the erection of associated plant and infrastructure and the creation of a new footpath and access onto Hamble Lane, Southampton.

### Definition of Health

The constitution of the World Health Organisation (WHO) defines health as not only the absence of disease or infirmity, but also as 'a state of complete physical, mental and social wellbeing.' It emphasises that all people have a right to the highest attainable standard of health and wellbeing, stating that health is 'one of the fundamental rights of every human being without distinction of race, religion, political belief, economic or social condition.'

It is now accepted that an individual or community's health is determined not only by the availability and quality of healthcare services, but that a range of economic, social, psychological, and environmental influences play an equally important role.

## 2.0 POLICY AND LEGISLATIVE CONTEXT

### 2.1 PLANNING AND POLICY GUIDANCE

#### National Policy

The National Planning Policy Framework (NPPF), revised September 2023, principally brings together and summarises the suite of Planning Policy Statements (PPS) and Planning Policy Guidance (PPG) which previously guided planning policy making. The NPPF supports the role of planning to create healthy, inclusive communities by supporting local strategies to improve health, social and cultural wellbeing for all and by working with public health leads and health organisations to understand and take account of the health status and needs of the local population.

Paragraphs 7 and 8 of the NPPF set out that the purpose of the planning system is to contribute to the achievement of sustainable development through overarching, interdependent objectives which need to be pursued in mutually supportive ways:

*“An Economic Objective – to help build a strong, responsive and competitive economy, by ensuring that sufficient land of the right types is available in the right places and at the right time to support growth, innovation and improved productivity; and by identifying and coordinating the provision of infrastructure;*

*A Social Objective – to support strong, vibrant and healthy communities, by ensuring that a sufficient number and range of homes can be provided to meet the needs of present and future generations; and by fostering a well-designed and safe built environment, with accessible services and open spaces that reflect current and future needs and support communities’ health, social and cultural well-being; and*

*An Environmental Objective – to contribute to protecting and enhancing our natural, built and historic environment; including making effective use of land, helping to improve biodiversity, using natural resources prudently, minimising waste and pollution, and mitigating and adapting to climate change, including moving to a low carbon economy.”*

Chapter 8 of the NPPF specifically outlines the promotion of health and well-being, wherein it outlines that developments should aim to promote healthy and safe communities which support the needs of local health and well-being.

*“Planning policies and decisions should aim to achieve healthy, inclusive and safe places which:*

*a) promote social interaction, including opportunities for meetings between people who might not otherwise come into contact with each other – for example through mixed-use developments, strong neighbourhood centres, street layouts that allow for easy pedestrian and cycle connections within and between neighbourhoods, and active street frontages;*

*b) are safe and accessible, so that crime and disorder, and the fear of crime, do not undermine the quality of life or community cohesion – for example through the use of clear and legible*

*pedestrian routes, and high quality public space, which encourage the active and continual use of public areas; and*

*c) enable and support healthy lifestyles, especially where this would address identified local health and well-being needs – for example through the provision of safe and accessible green infrastructure, sports facilities, local shops, access to healthier food, allotments and layouts that encourage walking and cycling.”*

*“Access to a network of high quality open spaces and opportunities for sport and physical activity is important for the health and well-being of communities. Planning policies should be based on robust and up-to-date assessments of the need for open space, sport and recreation facilities (including quantitative or qualitative deficits or surpluses) and opportunities for new provision. Information gained from the assessments should be used to determine what open space, sport and recreational provision is needed, which plans should then seek to accommodate.”*

The Planning Practice Guidance (PPG) web-based resource was updated by the Ministry for Housing, Communities and Local Government (MHCLG) in order to support the NPPF and make it more accessible. The PPG guidance on Healthy and Safe Communities encourages the design and use of the built and natural environments, including green infrastructure are major determinants of health and wellbeing.

### **Healthy Lives, Healthy People: our strategy for public health in England**

Published in November 2010, the White Paper sets out the Government’s long-term vision for the future of public health in England.

### **Joint Strategic Needs Assessment (JSNA)**

The Joint Strategic Needs Assessment (JSNA) produced by Hampshire County Council seeks to analyse current and future wellbeing needs of the local population to inform the commissioning of health, wellbeing, and social care services.

### **Local Policy**

Following a review of the Eastleigh Borough Council Health and Wellbeing Corporate Strategy (adopted February 2018), the following EBC procedures linked to improving health and wellbeing were identified.

- “Review policies and Council procedures that support tackling deprivation
- Fully assess lower level ‘strategies’, policies and action plans related to health and wellbeing, and prioritise:
  - Equality strategy
  - Homelessness strategy
  - Health Strategy
  - Housing (existing stock) strategy
  - Benefits strategy
  - Community Safety strategy

- Sport and active lifestyle strategy
- Identify external funding to deliver cultural & physical activity projects genuinely aligned financial and/or health and wellbeing objectives.



### 3.0 PUBLIC HEALTH PROFILE

It is important to understand the context within which a development is proposed. In this section the nature of the local environment and community profile is summarised for each of the relevant 'health determinants' (referred to in Section 1.0 above and in Section 3.0, Table 3.1) to be used in the HIA.

The proposed development is located at Hamble Airfield within the jurisdiction of Hampshire County Council (HCC). The total resident population within the jurisdiction of HCC was 1,400,899 people in 2021 according to Office of National Statistics for HCC.<sup>1</sup>

The life expectancy for the whole jurisdiction of HCC for both men and women is lower than the England average, with men's life expectancy being 78.3 years (9 months below the national average) and women's life expectancy being 82.5 years (8 months below the national average) in 2018-2020.

Between the last two censuses, the average (median) age for the area increased by two years, from 32 to 34 years of age. This area had the joint second-lowest average (median) age in the South-East (alongside Slough and behind Oxford) and a lower average (median) age than England (40 years).

The median age is defined as the age of the person in the middle of the group, meaning that one half of the group is younger than that person and the other half is older.

The number of people aged 50 to 64 years rose by around 5,000 (an increase of 14.4%), whilst the number of residents between 20 and 24 years fell by around 3,200 (11.0% decrease).

The percentage of people aged 16 years and over who were unemployed (excluding full-time students) in Eastleigh fell from 3.0% to 2.0%, while the percentage of people aged 16 years and over who were retired (economically inactive) has risen from 14.1% to 23.4%.

Census 2021 took place during the coronavirus (COVID-19) pandemic, a period of rapid and unparalleled change; the national lockdown, associated guidance and furlough measures will have affected the labour market and the ability to measure it.

Low-income groups in the area may be more vulnerable to health effects. This is because low-income groups are commonly associated with a higher rate of mortality and long-term health conditions due to a lower standard of living.

In 2021, 49.8% of residents described their health as "very good". Those describing their health as "good" remained at 34.7%. These are age-standardised proportions. The proportion of residents describing their health as "very bad" was 0.8%, while those describing their health as "bad" was 3.0%.<sup>2</sup>

<sup>1</sup> [2021 Census Profile for areas in England and Wales - Nomis \(nomisweb.co.uk\)](https://www.nomisweb.co.uk/census/2021)

<sup>2</sup> [2021 Census Profile for areas in England and Wales - Nomis \(nomisweb.co.uk\)](https://www.nomisweb.co.uk/census/2021)

## 3.1 LIFESTYLES

---

### Physical Activity

69.0% of adults in EBC do the recommended weekly physical activity, above the national average of 67.3%. Approximately 71.2% of EBC adults were classified as overweight or obese – an average greater than the national value of 63.8%.<sup>3</sup>

The principal causes of premature death in EBC are cancers, cardiovascular, liver and respiratory disease. These conditions are also the principal causes of disability and ill health. There were also 33 recorded deaths by suicide in 2021-2023.<sup>3</sup>

## 3.2 SOCIAL AND COMMUNITY INFLUENCES ON HEALTH

---

### Community Identity

In Hampshire, 92.6% of usual residents are white British, 42.8% of the population had no religion. 47.8% of the population reported their religion to be Christian, the second largest religion is Hindu. In 2021, 1.1% of Hampshire's population were Hindu, the third largest were Muslim at 0.9% of the population, Buddhist at 0.8% and other religions make up 0.6% of the population.<sup>4</sup>

## 3.3 LIVING / ENVIRONMENTAL CONDITIONS AFFECTING HEALTH

---

### Traffic/Road Network

There is a risk of injuries associated with traffic collisions / accidents on local road networks and there is the potential for a level of distress when travelling in busy periods or sitting in queuing traffic.

As per the submitted Transport Assessment, the latest available accident record does not highlight any existing highway defects or safety issues that would be exacerbated by the proposed development.

Hamble Lane forms the western boundary of the site. Hamble Lane is a single carriageway road, measuring approximately 9.5 m in width, with a 30 mph speed limit and has street lighting. It generally runs in a north south alignment and connects to the train station and roundabout providing access to Netley via Hound Road and onwards towards the A3024 and A27 via Windhover Roundabout to the north. To the south, Hamble Lane leads into Hamble-le-Rice.

As per the Transport assessment, it is concluded that there are no highway or transport reasons that would prevent the proposed development coming forward (ref: NPPF paragraph 110/111). The proposed development will:

- Provide safe and acceptable access for all people;
- Provide employees / visitors to the site with appropriate opportunities to travel by sustainable modes of transport;

<sup>3</sup> <https://fingertips.phe.org.uk/>

<sup>4</sup> 2021 Census Profile for areas in England and Wales - Nomis ([nomisweb.co.uk](https://www.nomisweb.co.uk))

- Be designed in accordance with prevailing design guidance; and
- Not have a 'severe' residual highways or unacceptable road safety impact.

### **Air Pollution/Air Quality**

A full Air Quality Assessment has been undertaken for the application site by Air Quality Assessments Ltd (dated December 2021). The Air Quality Assessment shows that the proposed development is not situated within an Air Quality Management Area. The Air Quality Assessment show that the proposed development is not predicted to exceed the Air Quality objective for Nitrogen Dioxide concentrations.

As indicated within the Air Quality Assessment, the Proposed Development is not predicted to exceed the Air Quality Objectives for Particulate Matter (PM<sub>10</sub> or PM<sub>2.5</sub> concentrations, respectively).

Temporary elevation in dust levels may arise on an intermittent basis as part of the construction phase of the proposed development. This is more likely when the proposed activities are undertaken during dry and/or windy meteorological conditions. The magnitude of the potential impact and resulting environmental effects depend on the potential for dust to become and remain airborne prior to returning to the surface as a deposit. Unlike other atmospheric pollutants, the presence of dust and its deposition is particularly dependent on distance to discrete receptors and prevailing weather conditions, with areas most consistently affected being located downwind of emission sources.

The increase in mortality risk associated with long-term exposure to particulate air pollution (PM<sub>10</sub> and PM<sub>2.5</sub>), i.e. the inhalation of small particles penetrating the lungs, is one of the most important, and best-characterised, effects of air pollution on health. There is evidence that people with pre-existing respiratory or cardiac disease or diabetes are more susceptible to the health effects of air pollution.

### **Green Space**

The application area covers approximately 60.04 hectares and is situated at the northern edge of Hamble-le-Rice village, between Southampton and Fareham. It lies within Eastleigh Borough. The site is a former military airfield south of the West Coast way railway line (between Southampton and Portsmouth), and currently comprises undulating unmanaged rough grassland and scrub land adjoined to the south by recent housing estate development. The application site is a private site, however, the fences surrounding the site have been damaged which has caused the public to use the site for recreation through access without permissions. Although there has been some recreational access on the site, it should be noted that it is a private site, and therefore, this should not have occurred. A total of 20,080 trees and shrubs will be planted, using native species found within the local area, creating enhanced nature conservation corridors as part of the site restoration proposals. The woodland, grassland, wetland, and hedgerow creation will integrate the restored landform into the surrounding Hamble landscape; the public rights of way network will be enhanced to enable them to be more useable and extended by permissive paths and an area of public open space, secured through the scheme.

## Noise

A Road Traffic Noise Assessment has been undertaken for the application site by WBM (dated December 2021). Table 7.8 within the Assessment shows that during the daytime, operational noise levels of the proposed development are predicted to be 50-46 dB

About 30% of UK's population is expressing dissatisfaction with their noise environment. The effects of exposure to noise on health include:

- Annoyance and sleep deprivation;
- An increased level of stress hormones leading to the possibility of long-term effects on blood pressure and on cardiovascular disease;
- An increased likelihood of developing mental illness and exacerbating existing mental health conditions;
- Impairment of cognitive performance in children.

A living environment free from noise disturbance is especially important for people who are at home for long periods, such as people living with existing mental health conditions.

The proposed quarry facility is not expected to have an adverse impact on health or quality of life. Since the proposed operations conform to the advice set out in the Planning Practice Guidance for Minerals with regard to both routine and temporary operations, it is considered that the site can be worked while keeping noise emissions to within environmentally acceptable limits.

## Water

The Site lies within Flood Zone 1 and is therefore not at risk of flooding from rivers or the sea. No flooding is anticipated even in the 1 in 1000 year flood event aside from two small depressions near the centre of the Site. The Site is not at risk of flooding as a result of reservoir failure and the risk of groundwater flooding in the area is low.

Drainage design has been undertaken and is fully detailed within the Drainage Design technical note produced by Stantec in support of the application. The drainage design includes surface water management through a combination of attenuation basins (which assume zero infiltration to ground), discharge control structures, infiltration basins and infiltration trenches. The Drainage Design determines that surface water drainage will be along known and existing surface water drainage routes, avoiding properties downslope of the site. Additionally, no surface water discharge contribution from the site is anticipated even in the event of a 1 in 100 year + Climate Change event. This is a result of the proposed restoration phase SUDS and infiltration features. Therefore, it is anticipated that the change in topography in the restoration phase does not represent an increase in surface water flood risk when compared to baseline surface water flood risk.

## Light

There will be minimal lighting installed on-site, which will only be located within the plant area. No lighting will be installed in proximity of residential properties. No floodlighting will be installed, and no overnight lighting will be active throughout the life of the scheme. The lighting to be installed within the plant area will only be active

during operational hours when dark, such as mornings and evening during the winter months when required. Therefore, there are no likely significant adverse impacts associated with the scheme regarding lighting.

### Biological Diversity

It is concluded that the proposed project is only likely to have short-term adverse effects during the operational and restoration phases, mainly resulting from the temporary losses of habitat and associated disruption caused to species of fauna which use the site. It is considered that an optimal level of embedded ecological mitigation is being proposed for the operational phases of the project and any unavoidable, short-term adverse ecological effects will be controlled at an acceptable level and then soon offset in the post-restoration period. Any adverse effects during the operational phases should also be counterbalanced to some degree by the predicted positive effects in relation to native hedgerows and off-site habitats.

The proposed restoration plan for the site is expected to have an overall positive long-term effect in terms of the biodiversity value of the site itself, the effects on identified ecological features within the ZOI, and the site's ecological connectivity and functionality within the surrounding landscape.

### Climate change

Some of the challenges that Hampshire and the UK are expected to face as a result of climate change include higher temperatures that could potentially lead to increased air pollution and consequent increase in number of people suffering from respiratory illnesses and asthma.

## 3.4 ECONOMIC CONDITIONS AFFECTING HEALTH

### Economic Activity

In 2022, 75.6% of East Hampshire residents are in employment and 3.2% of the population are unemployed<sup>5</sup>, with an economic inactivity rate of 20.3%.<sup>6</sup>

The top occupations listed by people in Hampshire County are Professional Occupations 20.4%; Elementary Occupations 8.4%; Managers, Directors and Senior Officials 14.8%, Associate Professional and Technical Occupations 14.5%, Administrative and Secretarial Occupations 9.9%, Skilled Trades Occupations 10.7%, Process Plant and Machine Operatives 5.3%, Leisure and Other Service Occupations 9.2% and Sales and Customer Service Occupations 6.8%.<sup>7</sup>

The dominating industry within Hampshire are Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles.

## 3.5 WELLBEING

The World Health Organisation includes wellbeing as a distinct part of its definition of health where health is a state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity. In this instance wellbeing is the state of being mentally or physically comfortable, healthy, or happy. However,

<sup>6</sup> [East Hampshire's employment, unemployment and economic inactivity - ONS](#)

<sup>7</sup> [2021 Census Profile for areas in England and Wales - Nomis \(nomisweb.co.uk\)](#)

wellbeing can be understood as how people feel and how they function, both on a personal and a social level, and how they evaluate their lives as a whole.

It is not possible to determine the wellbeing of a populous and therefore it is measured using indicative factors, such as access to open space, nature reserves or heritage assets, which can affect a population's wellbeing.

People with the poorest personal wellbeing are most likely to have at least one of the following characteristics or circumstances:

- self-report very bad or bad health;
- be economically inactive with long-term illness or disability;
- be middle-aged;
- be single, separated, widowed or divorced;
- be renters; and,
- have no or basic education.

In 2021, 34.5% of Eastleigh residents were economically inactive, lower than the Regional Average of 37.8% for Hampshire County and lower than the National Average of 39.1%. These figures show that the Local Authority area is more economically active than the Region and the National Average<sup>5</sup>.

In 2021, 33.1% of Eastleigh residents were educated to NVQ4 (equivalent to a Higher Education Certificate/BTEC) and above, compared to 34.2% of the Region and 33.9% of the Nation. A full breakdown of the education profiles of Eastleigh, Hampshire, and the National Averages is outlined in **Table 3-1**<sup>5</sup>.

**Table 3-1.** Office for National Statistics Data on Qualifications

Qualification	Eastleigh (%)	Hampshire (%)	England (%)
NVQ4 and Above	33.1	34.2	33.9
NVQ3 and Above	19.0	18.2	16.9
NVQ2 and Above	14.9	14.5	13.3
NVQ1 and Above	10.2	10	9.7
Other Qualifications	2.9	2.6	2.8

**Table 3-1** shows that Eastleigh residents have obtained a slightly lower level of education and qualifications than the National Averages for NVQ4 and above and lower level or education for NVQ4 and above when compared to the Regional Results.<sup>8</sup>

The Office for National Statistics has compiled data from an Annual Population Survey to assess personal wellbeing, which has been surveyed through four measures: *Life satisfaction*, feeling the things done in life are *Worthwhile*, *Happiness*, and *Anxiety*<sup>9</sup>. The four measures are assessed using a scale from 0-10 where 0 is 'not at all' and 10 is 'completely', and using the questions outlined below:

<sup>8</sup> 2021 Census Profile for areas in England and Wales - Nomis ([nomisweb.co.uk](https://nomisweb.co.uk))

- Life satisfaction - Overall, how satisfied are you with your life nowadays?
- Worthwhile - Overall, to what extent do you feel that the things you do in your life are worthwhile?
- Happiness - Overall, how happy did you feel yesterday?
- Anxiety - On a scale where 0 is “not at all anxious” and 10 is “completely anxious”, overall, how anxious did you feel yesterday?

**Table 3-2.** Office for National Statistics Wellbeing Survey 2020/2021

Wellbeing Measure	Eastleigh	Hampshire	Great Britain
Anxiety	3.3	3.5	3.3
Happiness	7.5	7.5	7.3
Life Satisfaction	7.6	7.7	7.4
Worthwhile	7.7	8.1	7.7

**Table 3-2** outlines the Office for National Statistics data for the Annual Population Survey for each of the four wellbeing measures. In each of the four categories which constitute the measurements of wellbeing, Eastleigh has the joint highest level of happiness when compared against the Regional and National averages.

Given the analysis of baseline wellbeing within the Authority area of Eastleigh, it can be concluded that the wellbeing in the Local Authority Area is in line with the Regional Averages and National Averages.

It should be noted that the proposed plans include an area of open space at the northeastern boundary of the Proposed Development and includes new footpaths around the edges of the application site; post development this area will remain open to the public and there will be no buildings on this area.

Additionally, the development will have an economic impact on the Local Authority Area as well as further afield, as during the construction phase, the proposed development will provide a large number of direct and indirect job opportunities through the supply chain.

The economic benefits of employment at the Proposed Development are likely to be felt adjacent to the Proposed Development and in the Local Authority Area as well as creating job opportunities at the development site.

Access to green space and economic activity are recognized to have an impact on wellbeing, and therefore is determined that the proposed development is likely to have a net increase on local wellbeing on completion of the scheme.

## 4.0 ASSESSMENT METHODOLOGY

### 4.1 HEALTH IMPACT ASSESSMENT APPROACH AND METHODOLOGY

Health Impact Assessment is commonly defined as “a combination of procedures, methods and tools by which a policy, program or project may be judged as to its potential effects on the health of a population, and the distribution of those effects within the population.” It is a tool to appraise both positive (e.g. creation of new jobs) and negative (e.g. generation of pollution) impacts on the different affected subgroups of the population that might result from the development.

The HIA aims to identify all these effects on health in order to enhance the benefits for health and minimise any risks to health. It includes specifically a consideration of the differential impacts on different groups in the population, such as those on a low income, people involved in the criminal justice system, minority ethnic groups, young, disabled (physically and learning) and elderly people.

Spatial planning and development has the potential to impact on human health and wellbeing. This is because a wide range of social and environmental factors affect the health of local communities. Good health is related to good quality housing and developments, well designed street scenes, well laid out neighbourhoods, quality and efficiency in transport systems, opportunities to experience leisure and cultural services activities and green and open space. These factors are known as the “wider determinants of health” and include:

- Individual lifestyle factors such as smoking habits, diet and physical activity.
- Interactions with friends, relatives and mutual support within a community.
- Wider influences on health including – living and working conditions, unemployment, sanitation, health care service, housing, food supplies, education, and the work environment.

#### Health Impact Assessment, A Practical Guide Version 2

Whilst there is no statutory regional or national guidance for undertaking HIA in the UK, advice provided by the Welsh Health Impacts Assessment Support Unit (WHIASU) has been used to inform the HIA as it provides a methodology for completing HIAs.

The HIA has been undertaken with reference to the Public Health England produced ‘Health Impact Assessment in spatial planning: A guide for local authority public health and planning teams’, published October 2020, which outlines the requirements of an HIA, and the general scope of the assessments, and are determined to be appropriate and are in accordance with best practice.

The above is further supplemented by the applicant’s and consultant’s experience of other similar sites and developments, which contains over 20 years’ experience in applications of this nature.

Based on the Health and Wellbeing Determinants Checklist within the ‘Health Impact Assessment, A Practical Guide Version 2’, the scoping assessment identified a number of health determinants (as outlined in Section 3.0, Table 3.1) as having the potential to result in health impacts on the development and therefore have been scoped into further assessment.

The HIA takes a proportionate approach to the consideration of any health-related impacts which could arise from the proposed development.



This guide provides advice on defining health and measuring impacts on it. It includes a checklist of potentially vulnerable and disadvantaged groups (appendix 1) and a checklist of health determinants (appendix 2). The documents recognises that target groups are a guide only and will depend upon the:

- Characteristics of the local population; and
- The nature of the proposal.

In the context of this assessment, health effects as a result of a change in pollutant levels has been identified as the most relevant topic for assessment within the HIA.

## 4.2 AIMS AND OBJECTIVES OF HEALTH IMPACT ASSESSMENT

---

A Health Impact Assessment should:

- Include individual lifestyle factors such as smoking habits, diet and physical activity. Impacts of the proposed development on planned new communities and the adjacent existing communities in the development area;
- Highlight any potential differential distribution effects of health impacts among groups within the population by asking 'who is affected?' for the impacts identified; and,
- Suggest actions / mitigations that aim to minimise any potential negative health impacts and maximise potential positive health impacts, referencing where possible the most affected vulnerable group(s).

A topic of great concern to the public and to Local Authorities is mental health and wellbeing and the importance of certain aspects of the built and natural environment are to such health factors. It is difficult to appropriately measure the mental health and wellbeing of populations, and therefore it is not possible to show trends in fluctuations of health and wellbeing in communities. Aspects of developments and their surroundings are used as indicators for mental and physical health as well as wellbeing, such as the availability of greenspace, and the potential effects the development will have on these factors.

**Table 4-1** lists the Health Determinants considered in the HIA.

Table 4-1. Health Determinants considered in the HIA

Health Determinant	Explanation	Population Group Potentially Affected
<b>Lifestyles</b>		
Physical activity	Physical activity is defined as any bodily movement that requires energy expenditure. Popular ways to be active includes walking, cycling, sports and recreation. Within the proposed development, physical activity is considered within the availability of pedestrian and cycle routes which encourage 'healthy travel'.	Pedestrians and cyclists
<b>Social and community influences on health</b>		
Community Identity	There is no one definition of community identity however it is considered to comprise a neighbourhood's history, natural features, cultures, population and services make-up and sources of community pride.	Local Residents
<b>Living / environmental conditions affecting health</b>		
Traffic NO <sub>2</sub> emissions	Emissions from all of the above have the potential to affect human health through inhalation.	Future Residents Local Residents
Traffic particulate matter		
Boiler/CHP NO <sub>2</sub> Emissions		
Health effects of air pollutants		
Access to green space	Green space includes parks and gardens, natural and semi-natural urban green spaces, outdoor sports facilities, landscape around spaces and accessible countryside <sup>10</sup> . There is significant and growing evidence on the health benefits of access to good quality green spaces. The benefits include better self-rated health; lower body mass index, overweight and obesity levels; improved mental health and wellbeing; increased longevity.	Local Residents and General Population
Noise	Noise has the potential to disrupt sleep and cause nuisance at surrounding receptors and has the potential to damage the hearing of site employees if working near particularly loud sources.	Future Residents Local Residents
Flood Risk	There is potential for distress as a result of damage to property as a result of flooding.	Site residents/employees
Wind	There is potential for microclimate effects of the tall building to create strong gusts which would cause discomfort to pedestrians and there is a risk that cyclists could be blown over.	Pedestrians/cyclists
Light	There is potential for obtrusive light from the proposed development to result in light nuisance which could affect wellbeing and, in worst-case circumstances, may affect human health.	Local Residents
<b>Economic conditions affecting health</b>		
Economic activity	Economic activity is generated through employment opportunities and trade within the area.	Employees; Local Residents

<b>Access and quality of services</b>		
Road hazards	The potential for traffic accidents as a result of road infrastructure such as signage and road crossings and the behaviour of drivers, pedestrians and cyclists.	Pedestrians; cyclists; road users
Journey distress	Mental and physiological effects experienced by a driver traversing a road network. Journey distress can result in drivers the feelings of discomfort, annoyance, frustration or fear culminating in physical and emotional tension that detracts from the value and safety of a journey.	Drivers
<b>Macro-economic, environmental and sustainability factors</b>		
Government policies	Government policy encourages mineral extraction so as to have necessary aggregates for construction	Local Residents and General population
Climate change	As a result of anthropogenic activities, the climate of the UK is expected to change over time with increasing temperatures, more varied rainfall patterns and an increase in the frequency of extreme weather events.	
Biological diversity	Biological diversity includes habitats, species and any protected designated areas.	Surrounding habitats

## 5.0 ASSESSMENT OF EACH IDENTIFIED HEALTH DETERMINANT

Based on the above scoping exercise, an assessment and summary of the relevant potential health effects is included in **Table 5-1** to **5-3** below. The tables provide a summary of the proposals for each health determinant, but these should be read in conjunction with the relevant technical report submitted with the planning application.

**Table 5-1.** Summary of Proposed Development

### Proposal Summary

Proposed extraction of sand and gravel, with restoration to grazing land and recreation using imported inert restoration materials, the erection of associated plant and infrastructure and the creation of a new footpath and access onto Hamble Lane.

Table 5-2. Summary of Health Effects

Health Determinant	Assessment Summary	Additional Comments	Is the Development predicted to have a Significant Effect on this Aspect Health?
<b>Lifestyles</b>			
Physical activity	<p>The application site is a private site, however, the fences surrounding the site have been damaged which has caused the public to use the site for recreation through access without permissions. Although there has been some recreational access on the site, it should be noted that it is a private site, and therefore, this should not have occurred. Trees and shrubs will be planted, using native species found within the local area, creating enhanced nature conservation corridors as part of the site restoration proposals. The woodland, grassland, wetland, and hedgerow creation will integrate the restored landform into the surrounding Hamble landscape resulting in no permanent loss of green space.</p> <p>The public rights of way network will be enhanced to enable them to be more useable and extended by permissive paths and an area of public open space, secured through the scheme.</p>	<p>There will be a benefit as a result of greater access to greenspace and pathways as a result of the proposed development.</p> <p>The provision of publicly accessible open space is considered to balance to an overall positive effect of the scheme on potential physical activity.</p> <p>A contribution to HCC will be made for the council to provide and improve sustainable transport measures such as improved walking and cycling options.</p>	<p><b>No Significant adverse effect.</b></p> <p><b>There will be a benefit from the additional walking infrastructure.</b></p> <p><b>There will be a benefit from the enhanced publicly accessible open space.</b></p> <p><b>There will be a benefit from the contribution to HCC to provide and improve sustainable transport measures.</b></p>
<b>Social and community influences on health</b>			
Community Identity	<p>There has been community engagement as part of the planning application process prior to submission of the application. Additionally, the applicant has attempted to offer parish meeting and site visits since.</p>		<b>No Significant Adverse Effect</b>
<b>Living / environmental conditions affecting health</b>			
Traffic NO <sub>2</sub> emissions	<p>An Air Quality Technical assessment has been completed by Air Quality Assessments Ltd (December 2021) to accompany the planning application. This shows that the changes in air quality to surrounding residents will be 'negligible'.</p> <p>The assessment showed no exceedances of the Air Quality Objective for Nitrogen Dioxide.</p> <p>Mitigation measures included within the Travel Plan associated with the scheme will be implemented to promote the use of sustainable transport measures.</p>		<b>No Significant Adverse Effect</b>
Traffic particulate matter	<p>An Air Quality Technical assessment completed by Air Quality Assessments Ltd (December 2021) has been completed to accompany the planning application. This shows that the changes in air quality to surrounding residents will be 'negligible'.</p> <p>The assessment showed no exceedances of the Air Quality Objective for Particulate Matter.</p>		<b>No Significant Adverse Effect</b>
Health effects of air pollutants	<p>There is currently limited awareness among the general population of local air pollution levels and how they can affect people and the difference between perception and risk.</p>		<b>No Significant Adverse Effects</b>

	<p>There is predicted to be a 'negligible' impact associated with air pollutants as a result of the development.</p> <p>Further information has been provided, to supplement the application's air quality assessment, which provides clarity on questions and queries as part of a Regulation 25 related to air quality and the application site.</p>		
Access to green space	<p>The parks and green spaces in the area beyond the Site will not be affected by the proposed development.</p> <p>The proposed development has a scheme of landscaping which will encourage and promote access to green spaces.</p>		<b>No Significant Adverse Effect</b>
Flood risk and water quality	<p>A flood risk assessment has been undertaken. The site is located in Flood Zone 1 which has a low risk of flooding.</p>		<b>No Significant Adverse Effect</b>
Noise	<p>A Road Traffic Noise Assessment undertaken has been completed which assesses the effects of noise from the scheme on surrounding residences.</p> <p>The assessment gives appropriate mitigation measures to manage any noise levels at sensitive internal or external spaces.</p>	<p>During Construction, Site employees will wear personal protective equipment (PPE) where required.</p>	<b>No Significant Adverse Effect</b>
Wind	<p>The proposed development does not include the construction of any tall buildings. As such, there is no requirement for a wind microclimate assessment to be undertaken and there are not expected to be any adverse effects as a result of the development in terms of wind.</p>		<b>No Significant Adverse Effect</b>
Light	<p>There will be minimal lighting installed on-site, which will only be located within the plant area. No lighting will be installed in proximity of residential properties. No floodlighting will be installed, and no overnight lighting will be active throughout the life of the scheme.</p>	<p>The lighting to be installed within the plant area will only be active during operational hours when dark, such as mornings and evening during the winter months when required.</p>	<b>No Significant Adverse Effect</b>
<b>Economic conditions affecting health</b>			
Economic activity	<p>During the construction phase, the proposed development will provide a large number of job opportunities, both directly and indirectly through the supply chain.</p>	<p>The economic benefits of employment at the proposed development are not only going to be felt adjacent to the Proposed Development and in the Local Authority Area, but also in other parts of the county, neighbouring Local Authority areas and the neighbouring communities.</p>	<p><b>No Significant Adverse Effect</b></p> <p><b>There will be a benefit from the supply of essential raw materials for construction, ongoing employment and economic growth.</b></p>
<b>Access and quality of services</b>			
Road hazards	<p>A Transport Assessment has been produced and has been submitted as part of this application. The proposals are unlikely to have any material impact on the level of personal injury accidents in the area;</p>	<p>A safe vehicular access point into the Site will be created, and a routing agreement will be made to ensure vehicles do not travel through Hamble Village and only follow the agreed route.</p>	<b>No Significant Adverse Effect</b>

<p>Journey distress</p>	<p>There are no highway or transport reasons that would prevent the proposed development coming forward. The proposed development will provide safe and acceptable access, provide employees / visitors to the site with appropriate opportunities to travel by sustainable modes of transport and be designed in accordance with prevailing design guidance.</p> <p>The development will not have a 'severe' residual highways or unacceptable road safety impact.</p> <p>A CEMP can be submitted by planning condition to manage construction aspects of the development should one be required.</p>		<p><b>No Significant Adverse Effect</b></p>
<p><b>Macro-economic, environmental and sustainability factors</b></p>			
<p>Climate change</p>	<p>The UK Climate Projections contains regional climate information for which EDC is included in the South West region. The South West region is predicted to experience changes in temperature, rainfall, and frequency of extreme weather events as a consequence of climate change. These changes are predicted to occur under all three emissions scenarios (i.e. low, medium, and high Green House Gas emissions), which are incorporated into the climate change models produced by the Met Office Hadley Centre. The general trend for the region is warmer and drier summers and warmer and wetter winters.</p> <p>The Flood Risk Assessment has considered an allowance for climate change within the assessment for surface water and as a result, appropriate site-specific flood risk mitigation measures have been included with recommendations for a strategy for managing and mitigating any flood risk posed to or resulting from the Site.</p> <p>The application site has the potential to impact on climate change through the effects of flood risk, vehicle emissions, energy consumption, location relative to market and the impact on habitats and species. However, the site minimises its impacts on climate change as far as possible. There are no significant adverse environmental effects during the operational period of the development and the proposal will have environmental benefits in terms of its restoration and the net gain in biodiversity.</p>	<p>The Climate Change and Sustainability Chapter has considered the effects of climate change at the site.</p>	<p><b>No Significant Adverse Effect</b></p>
<p>Biological diversity</p>	<p>Protected species surveys have been undertaken to inform an ecological appraisal and assessment of potential impacts associated with the proposed scheme. This includes the surveying of bats, breeding and wintering birds, hazel dormouse, invertebrates, and reptiles. The ecological assessment determined that the proposed project is only likely to have short-term adverse effects during the operational and restoration phases, mainly resulting from the temporary losses of habitat and associated disruption caused to species of fauna which use the site.</p> <p>Ecological mitigation is proposed for the operational phases of the scheme which will control, to an acceptable level, unavoidable, short-term adverse ecological effects. The short-term adverse effects will be quickly offset as a result of the restoration phase..</p>	<p>There will be no long-term significant adverse impact on protected species, or on habitats and biodiversity generally should all guidance be followed. The scheme is predicted to result in a beneficial impact on biodiversity and ecological connectivity.</p>	<p><b>No Significant Adverse Effect</b></p>

**Table 5-3. Rapid Health Impact Assessment**

Planning and Development Issue	Impact			Certainty		Description of Impact on health and your rationale for this	Recommendation (to minimise or maximise impact)
	+	-	?	?	!		
<b>Construction</b>							
Pollution	x				x	The Air Quality Assessment confirms that during the construction and operational phases of the development there is the potential for air quality impacts as a result of fugitive dust emissions from the Site. However, assuming good practice dust control measures are implemented, the residual significance of potential air quality impacts from dust generated by earthworks, construction and trackout activities is predicted to be negligible.	The Air Quality Assessment recommends that principles of standard construction mitigation measures are implemented on site to reduce the impact of construction activities. Following the implementation of mitigation the impact of construction activities is predicted to be 'negligible'.
<b>Access to Sustainable Travel and Transport</b>							
Promotion and ease of cycling and walking	x				x	A Transport Assessment undertaken has been submitted as part of this application this confirms that there is a high standard of pedestrian infrastructure and off-road and on-road cycle routes easily accessible from the Site.	A contribution to HCC will be made for the council to provide and improve sustainable transport measures such as improved walking and cycling options. This will result in a net benefit as to the areas surrounding the application site.
Access to public transport links	x				x	The use of public transport and sustainable commuting methods, would allow staff to access the premises without the need for private cars. It therefore concludes that the Site is accessible by a range of sustainable modes of transport and can be considered a suitable location for the proposed development.	N/A
<b>Access to healthy food/food</b>							
Ease of access to local supermarkets or convenience stores	x				x	Local shops, supermarkets and other amenity and commercial entities are within walking distance of the development.	N/A
Opportunities for local food growing						N/A	N/A
<b>Community Safety</b>							
Traffic management		x			x	Construction work to the road network within the development area could result in congestion or diversions for both motorised and non-motorised users. A safe vehicular access point into the Site will be created. This could result in a short-term impact whilst it is created. There are no other proposed works to the road network within or outside the site.	A routing agreement will be made and agreed to ensure vehicles do not travel through Hamble Village and only follow the agreed route.



						The proposals are unlikely to have any material impact on the level of personal injury accidents in the area;	
Lighting	x				x	Sufficient provision of effective lighting will be installed on site, which will assist in limiting opportunities for antisocial behaviour.	N/A
Safe and secure play areas						N/A	N/A
Safe and inclusive environments						N/A	N/A
Prevention of crime and anti-social behaviour	x				x	The current Site with its lack of development and maintenance, presents an opportunity for anti-social behaviour and crime. The design of the site includes security measures on site, to be accompanied with landscaping. Fencing will be installed and in place throughout the life of the operational phase of the development. This will ensure a high level of security is achieved. Appropriate lighting will also be provided on site which will prevent crime and increase community safety.	N/A
<b>Employment and Economy</b>							
Local employment opportunities	x				x	The construction of the proposed development will result in direct and indirect employment opportunities. Numerous jobs are supported throughout the downstream supply chain (drivers, construction workers).	N/A
Access of a variety of travel modes to places of work						The development will encourage pedestrian access to the station via new links located around the edge of the site. These pedestrian access links will be provided at the beginning of the development	N/A
<b>Community Cohesion</b>							
Ease of access to public buildings for all						N/A	N/A
Ease of access to public spaces for all						The provision of enhanced publicly accessible space is considered to balance to an overall positive effect of the scheme on access to public spaces and increase the potential physical activity and wellbeing.	N/A
Opportunities for promoting community interaction						N/A	N/A

Climate Change						
Green infrastructure	x				x	<p>The proposed development is designed with sustainability in mind. Drainage is considered in detail. Further detail can be found in the submitted Climate Change and Sustainability ES Chapter (17), as well as full details of Water Environment &amp; Flood Risk ES Chapter (8).</p> <p>The Sustainability and Climate Change Statement details the proposal's focus on sustainability.</p> <p>Green infrastructure in the form of new woodland areas, trees, hedgerows and grassland will be provided.</p>
Flood risk and drainage	x				x	<p>A flood risk assessment has been undertaken. The site is located in Flood Zone 1 which has a low risk of flooding.</p> <p>N/A</p>

## 6.0 CONCLUSIONS

Tetra Tech have undertaken a Health Impact Assessment (HIA) in support of an application for a proposed extraction of sand and gravel, with restoration to grazing land and recreation using imported inert restoration materials, the erection of associated plant and infrastructure and the creation of a new footpath and access onto Hamble Lane

The potential effects of the scheme on human health have been identified and summarised. The HIA draws heavily on the extensive work undertaken for the planning application. The summary of health effects is included in **Tables 5-1 to 5-3**. This concludes that the proposed development is not predicted to give rise to any significant adverse health-related impacts, and that there will be some benefits.

The public health profile for the surrounding area has been summarised. This generally shows that life expectancy and wages are lower than the UK average around the site however, there is not likely to be an adverse impact as a result of the development.

A review of the potential for the development to have health effects of surrounding occupants has been undertaken. However, this assessment concludes that there are no significant adverse effects to health as a result of the scheme.

## APPENDIX A - REPORT TERMS & CONDITIONS

This Report has been prepared using reasonable skill and care for the sole benefit of CEMEX (“the Client”) for the proposed uses stated in the report by Tetra Tech Limited (“Tetra Tech”). Tetra Tech exclude all liability for any other uses and to any other party. The report must not be relied on or reproduced in whole or in part by any other party without the copyright holder’s permission.

No liability is accepted, or warranty given for; unconfirmed data, third party documents and information supplied to Tetra Tech or for the performance, reliability, standing etc. of any products, services, organisations or companies referred to in this report. Tetra Tech does not purport to provide specialist legal, tax or accounting advice.

The report refers, within the limitations stated, to the environment of the site in the context of the surrounding area at the time of the inspections. Environmental conditions can vary, and no warranty is given as to the possibility of changes in the environment of the site and surrounding area at differing times. No investigative method can eliminate the possibility of obtaining partially imprecise, incomplete or not fully representative information. Any monitoring or survey work undertaken as part of the commission will have been subject to limitations, including for example timescale, seasonal and weather-related conditions. Actual environmental conditions are typically more complex and variable than the investigative, predictive and modelling approaches indicate in practice, and the output of such approaches cannot be relied upon as a comprehensive or accurate indicator of future conditions. The “shelf life” of the Report will be determined by a number of factors including; its original purpose, the Client’s instructions, passage of time, advances in technology and techniques, changes in legislation etc. and therefore may require future re-assessment.

The whole of the report must be read as other sections of the report may contain information which puts into context the findings in any executive summary.

The performance of environmental protection measures and of buildings and other structures in relation to acoustics, vibration, noise mitigation and other environmental issues is influenced to a large extent by the degree to which the relevant environmental considerations are incorporated into the final design and specifications and the quality of workmanship and compliance with the specifications on site during construction. Tetra Tech accept no liability for issues with performance arising from such factors.