

Derbyshire and Derby Minerals Local Plan 2022 – 2038

Pre-submission Draft Plan

Health Impact Assessment

January 2023



Derby City Council



DERBYSHIRE
County Council

Contents

1.	Introduction	1
2.	Health and Planning	3
3.	What is a Health Impact Assessment	7
4.	The Health Impact Assessment Process	8
5.	Derbyshire and Derby Health.....	10
6.	Screening.....	14
7.	Scoping.....	16
8.	Appraisal and Conclusion	17
	Appendix 1: Health Profile for Derbyshire and Derby.....	20
	Appendix 2: Scoping Health Impact Assessment.....	26
	Appendix 3: Appraisal	40



1. Introduction

- 1.1 Planning authorities are required by law to prepare local development documents¹ setting out strategic priorities for the development and use of land in their area and strategic policies to address those priorities.² Derbyshire County Council and Derby City Council are mineral and waste planning authorities, with Derby City also having responsibility for all other types of development within its area.
- 1.2 Derbyshire County Council and Derby City Council have jointly prepared a minerals local plan that covers the period from 2022 to 2038. It is called the Derbyshire and Derby Minerals Local Plan and covers the geographical county of Derbyshire, excluding that part which falls within the Peak District National Park (PDNP). Once adopted it will supersede the saved policies of the Minerals Local Plan adopted in 2000 (with an Alteration to the Coal policies adopted in 2002). Minerals are a finite resource of economic importance both locally and nationally and having an up-to-date local plan is key to secure the long term future of mineral resources to ensure that throughout the plan period there is a steady and adequate supply to meet anticipated demand.
- 1.3 The Pre-Submission Draft Plan is the version of the Plan that MPA intends to submit to the Planning Inspectorate for examination. It sets out:
1. The spatial overview of the Plan area in terms of population, economic and social conditions, transport, natural, built and historic environment, and a profile of the minerals industry;
 2. A long-term vision for mineral development to 2038;
 3. Strategic priorities/objectives to deliver the vision;
 4. A Key Diagram showing a geographical picture of the strategic priorities;
 5. Strategic Policies addressing the strategic priorities including policies to enable the supply of important minerals to 2038 and site allocations, where appropriate, to meet demand;

¹ Planning and Compulsory Purchase Act 2004, Section 17 (as amended by the Planning Act 2008)

² Planning and Compulsory Purchase Act 2004, Section 19 (as amended by the Neighbourhood Planning Act 2017)

6. Non-Strategic Other Mineral Related Issues policies and Development Management Policies to avoid, control and mitigate the impacts of mineral development;
 7. A Monitoring Framework to monitor the effects of the Plan's policies and proposals and inform the need for Plan review;
 8. The Principal Planning Requirements that need to be addressed by any planning application to work a proposed allocation site.
 9. A Policies Map which presents the Plan's policies geographically is provided separately to the Plan.
- 1.4 The Councils have already undertaken a number of stages of plan preparation and consultation so far. These are shown below along with the anticipated stages of further production in italics.
1. Stakeholder Workshop July 2009
 2. Key Issues and Options Consultation 2010
 3. Sand and Gravel Sites Consultation 2012
 4. Emerging Approach 2015/2016
 5. Hard Rock Sites Consultation 2016/2017
 6. Proposed Approach 2018
 7. Sand and Gravel Sites Consultation 2020
 8. Proposed Draft Plan 2021
 9. Pre-Submission Draft Plan (Publication Plan) 2022 (the current stage)
 10. *Submission to Planning Inspectorate*
 11. *Examination in Public*
 12. *Modification Stage*
 13. *Adoption*
- 1.5 Part of the process to prepare the Plan is to consider the implications of the planning policies contained within the Plan upon matters relating to health. Health impacts of the Plan were first considered through the Sustainability Appraisal process, which has been integral to the preparation of the Local Plan from the outset. Specific consideration through a Health Impact Assessment (HIA) was not considered necessary until the Pre-Submission Draft stage, when the development of policy was in its final stages enabling more in-depth consideration and assessment.

2. Health and Planning

The Detriments of Health

- 2.1 To carry out an HIA it is necessary to consider the dynamic link between planning and health. According to the World Health Organisation's (WHO) first constitution principle health is defined as:

“Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.”³

- 2.3 The WHO definition outlines that health is multi-faceted and is comprised of more than just the 'absence of disease or infirmity'. To this extent it is important to appoint appropriate weight to the promotion of good health in individuals, society, and social infrastructure. This not only leads to a healthier economy but also brings an array of potential social benefits.
- 2.4 The Derbyshire and Derby Minerals Local Plan Sustainability Appraisal⁴ identifies the importance of protecting leisure and recreational sites from new minerals and waste developments as well as taking opportunities that enhance health and well-being through proposals for the sensitive restoration and after use of mineral sites. At the same time there is also the need to provide economic growth and employment opportunities, improvements in workforce skills and reducing barriers to communities to participate.
- 2.5 Dahlgren and Whitehead⁵ sought to identify determinants of health interacted, resulting in the development of the rainbow model that highlights the main determinants of health which contribute to health inequalities. This model has since been modified and expanded by many researchers.
- 2.6 The rainbow model consists of 8 layers:
1. Layer 1 - People (age, sex, hereditary factors)
 2. Layer 2 - Lifestyle (diet, physical Activity, work-life balance)
 3. Layer 3 - Community (social capital, social networks)
 4. Layer 4 - Local Economy (wealth creation, resilient markets)

³ World Health Organisation Constitution: <https://www.who.int/about/governance/constitution>

⁴ Derbyshire and Derby Minerals Local Plan (2022-2038) Sustainability Appraisal Report January 2023

⁵ Dahlgren, G (1995) European Health Policy Conference: Opportunities for the future. Vol 11 – Intersectoral Action for Health. Copenhagen: WHO Regional Office for Europe.

5. Layer 5 - Activities (working, shopping, moving, living, playing, learning)
6. Layer 6 - Built Environment (buildings, places, streets, routes)
7. Layer 7 - Natural Environment (natural habitats, air, water, land)
8. Layer 8 - Global Ecosystem (climate stability, biodiversity)

Figure 1: Rainbow model of determinates of health



2.7 These layers that the rainbow represent are indicative of a complex relationship between the determinants and health. As seen in the first layer, part of our health is determined by our constitutional characteristics such as age, gender and ethnicity, which are fixed. Beyond this though are socio-environments determinants, like personal behaviour factors, community influences and living and working conditions. Health is then connected to where we live, our environment, income, education, relationships and genetics⁵. Whilst separated into layers, it should be noted that these determinants are interlinked to one another. For example, our work will affect our lifestyle and social networks which in turn all affect our health.

2.8 Although the rainbow model provided by Dahlgren and White covers a wide variety of determinants that influence health, the Health Foundation have identified 8 key wider, or social, determinants of health that can be acted upon to help increase opportunities to live a healthy life. These determinants are:

⁵ World Health Organisation, Health Impact Assessment (HIA): https://www.who.int/health-topics/health-impact-assessment#tab=tab_1

1. Friends, family and communities
2. Money and resources
3. Housing
4. Education and skills
5. Good work
6. Our surroundings
7. Transport and;
8. The food we eat

2.10 As Marmot outlined, these social determinants are then the ‘causes of the causes of health’ and if we are to truly tackle the health challenges and inequalities, the solutions must be focused on addressing these social determinants⁶.

Health and Planning

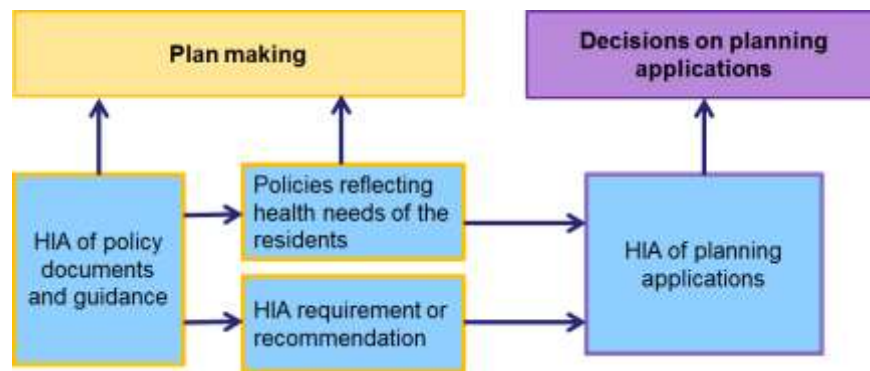
2.11 The majority of impacts in terms of mineral planning policies from the Rainbow model are likely to fall into the ‘general socio-economic, cultural and environmental conditions’ and ‘living and working conditions’ categories. The eight key wider determinants of health identified by the Health Foundation are related to the built and natural environment, all of which can be shaped and influenced by planning decisions and policies. Therefore, planning and health are inextricably linked and by focusing on the wider determinants of health and how planning proposals impacts these, planning can help to create healthy, inclusive and safe places and so reduce health inequalities.

2.12 Policies that are not directly health related, such as with the Derbyshire and Derby Minerals Local Plan, should still be considered via the approach of having health in all policies as a way to address the social determinants of health and through non-health sectors considering their potential impacts on these determinants. This will help alleviate health inequalities⁷.

2.13 The Health Impact Assessment provides a practical way to consider how planning policies impact on these wider determinants, placing a health lens then on them and so incorporating health considerations into local planning policies and decisions on planning applications.

⁶ Local Government Association. 2016. Health in all policies: A Manual for Local Governance.

Figure 2: HIA and the planning process



3. What is a Health Impact Assessment

- 3.1 The World Health Organisation defines Health Impact Assessment (HIA) as:

'A combination of procedures, methods and tools by which a policy, programme 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.'

- 3.2 HIA provides a practical and flexible framework by which the effects of proposals on health and inequality can be identified. Such effects are examined in terms of their differential impact, their relative importance and the interaction between impacts. In doing so, HIAs can make recommendations to inform decision making, particularly in terms of minimising negative impacts and maximising opportunity to promote health and wellbeing.
- 3.3 The use of HIA ensures that health impacts are explicitly considered in proposals and proposals and can help in the monitoring of such, to help future proposals and ultimately contribute to narrowing the gap between those experiencing the worst and best health.

4. The Health Impact Assessment Process

HIA in the plan making process

- 4.1 There is no statutory requirement to produce a Health Impact Assessment (HIA) in the development of planning policy, however, as set out in the previous chapters, HIA is an effective way of ensuring health and wellbeing is given due consideration. It is also closely linked to the statutory process of Sustainability Appraisal (which considered health impacts, but in less detail).
- 4.2 At the heart of current national planning, as set out in the National Planning Policy Framework, there is a focus on sustainable development, part of which is the delivery of healthy communities:
- ‘The planning system can play an important role in facilitating social interaction and creating healthy, inclusive communities’*
- 4.3 As part of this ‘planning system’, it is therefore desirable for health impacts to be considered as part of the development of the Minerals Local Plan and so the conclusions and recommendations of this HIA will have the potential to influence policy before it is finalised.

HIA Methodology

Table 1 sets out the details of the stages to be used in this assessment.

Table 1: Health Impact Assessment Procedure and links to HIA report

Stage	Description	Link to HIA Report
Screening	Review of a series of questions to establish whether there are likely to be health impacts as a result of the policy. Establishes whether HIA is required	Section 6 details the results of the Screening exercise.
Scoping	Identifies and prioritises relevant health impacts/determinates relating specifically to minerals development. This includes examination of baseline data for the area, which will help	Section 7 details the results of the Scoping exercise (details in Appendix 2). It includes baseline data on the health and wellbeing of Derbyshire and Derby’s population to provide context for assessment and to ensure that the health

	<p>establish boundaries for the assessment.</p>	<p>impacts identified are relevant to the local context (see Appendix 1). Consideration of local priorities for health (as set out in published strategies) will also be considered at this stage</p>
<p>Appraisal and Conclusion</p>	<p>Risk assessment of health impacts related to the Plan, to identify a risk rating and identify actions for the Plan. The actions will be recommendations for improvements to the Plan to mitigate the risk of the impacts.</p>	<p>Section 8 includes a summary of the findings of the appraisal and its recommendations (details set out in Appendix 3).</p>

5. Derbyshire and Derby Health

Health Profile of Derbyshire and Derby

5.1 To ensure the HIA process meets the requirements of Derbyshire and Derby it is required to first understand the current health issues in the area. This will provide a check to ensure policies within the Minerals Local Plan do not risk exacerbating any current health issues.

5.2 Derby City is a Unitary Authority whilst the remainder of the Plan area is governed via a two-tier local authority system by Derbyshire County Council and eight District/Borough councils:

1. Amber Valley Borough
2. Bolsover District
3. Chesterfield Borough
4. Derbyshire Dales District
5. Erewash Borough
6. High Peak District
7. North East Derbyshire District
8. South Derbyshire District

In terms of planning, Derbyshire County Council determines proposals for minerals and waste development and 'County Council' development such as schools, libraries and care homes in its area, whilst the district/borough councils determine all other development proposals. Derby City is a Unitary Authority and, as such, determines proposals for all development within its area. The Peak District National Park covers parts of High Peak Borough, Derbyshire Dales and North East Derbyshire District Council areas. Within the National Park the Peak District National Park Authority determines proposals for all development within its area.

5.3 A detailed health profile for Derbyshire and Derby is set out at Appendix 1. The Public Health England (now part of the Health and Social Care department www.gov.uk/government/organisations/office-for-health-improvement-and-disparities) highlights the health of Derbyshire and Derby compared to the England Average. The main points to highlight are:

In 2016-2018 the average life expectancy at birth for men: 79.5 years in Derbyshire, and 78.6 in Derby, both lower than for England (79.6). For

women: 83 years in Derbyshire compared to 82.3 in Derby again lower than for England (83.1).

- 5.4 Differences in life expectancy reflect health inequalities between different population groups e.g. between genders, social classes and ethnic groups. Deprivation shortens lives overall, but it has a greater impact upon the length of time spent living with poor health and/or with disability. The difference in life expectancy between the least and most deprived areas (deciles of Local Super Output Areas (LSOAs) of Derbyshire was for men: 7.8 years, significantly lower than for England (9.3); for women: 7.1 years, lower than for England (7.3). In Derby life expectancy is 10.2 years lower for men and 9.3 years lower for women.

Derbyshire and Derby Health and Wellbeing

- 5.5 Considering the current health profile, Derbyshire County Council's Health and Wellbeing board have produced a 5 point priority strategy for improving health and wellbeing across Derbyshire with a focus on action to address the wider determinants of health⁷. The 5 priorities are:
1. **Work to lower levels of air pollution** – outcome indicators - increase in active modes of transport, reduction in average concentrations of nitrogen oxide and particulate matter. The effective management of mineral sites and associated transport in terms of dust control, greenhouse gas emission control, switch to low carbon energy, energy efficiency, use of non-road transport all have the potential to reduce air pollution.
 2. **Build mental health and wellbeing across the life course** – outcomes indicators focus on reductions in social isolation, loneliness, premature deaths, suicides. The restoration of mineral sites to increase opportunities for informal and formal recreation can indirectly positively impact on mental health and well-being. The effective management of mineral sites can improve mental health and well-being.
 3. **Support our vulnerable populations to live in well-planned and healthy homes.** Within the Council's capacity as a consultee for local planning authorities when looking at new housing we are able to indirectly promote sustainable housing design and layout looking at low energy housing, using healthy low toxin materials ensuing natural

⁷ Health and wellbeing strategy: <https://www.derbyshire.gov.uk/social-health/health-and-wellbeing/about-public-health/health-and-wellbeing-board/health-and-wellbeing-strategy/health-and-wellbeing-strategy.aspx>

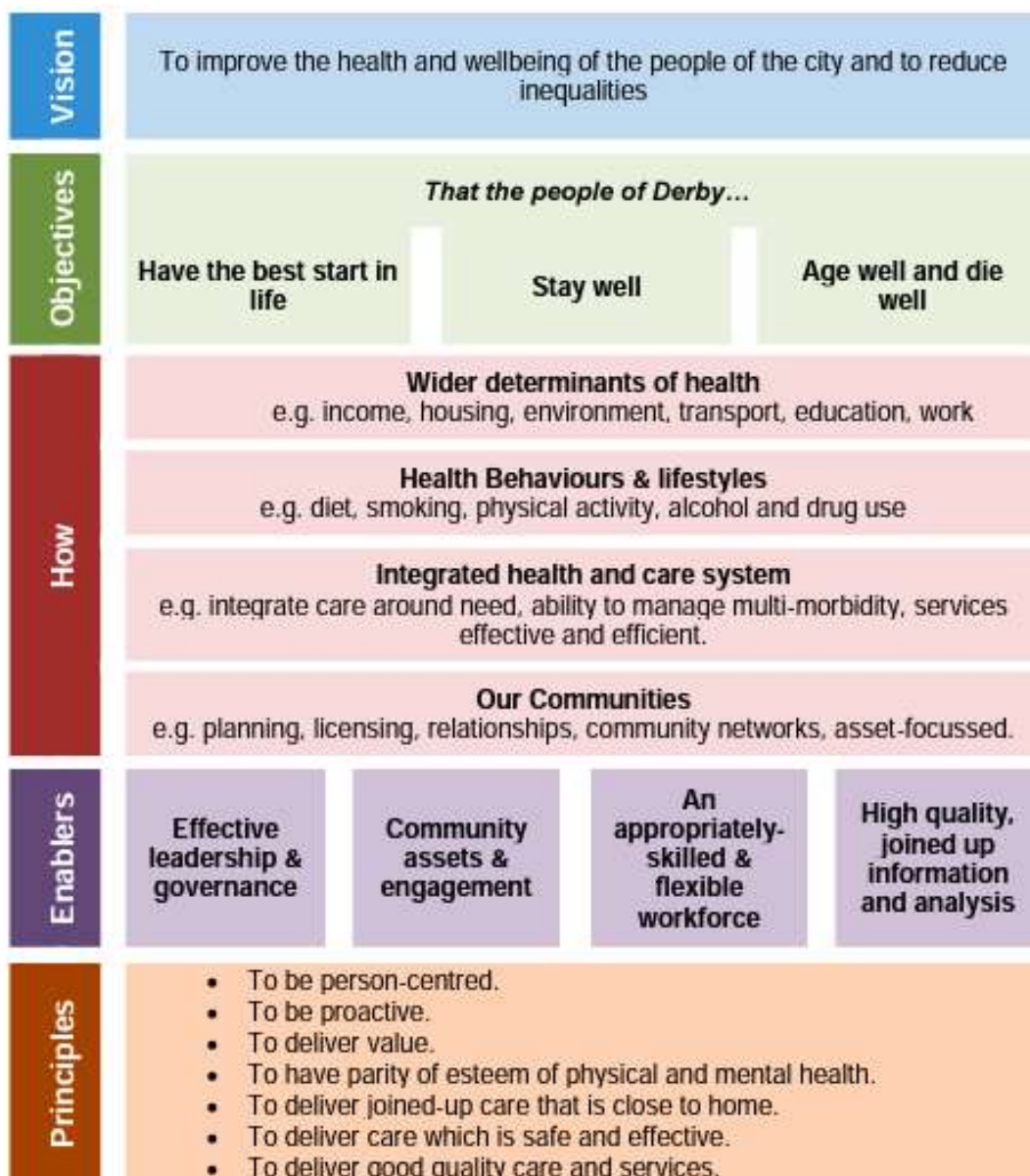
light and ventilation with connected links to transport and shops, all of which contribute to a sense of place

4. **Strengthen opportunities for quality employment and lifelong learning** – outcomes providing good quality employment. Employment within the minerals industry provides Derbyshire with good quality skilled jobs.

5.6 Derby City¹⁰ has a slightly different Health and Wellbeing Strategy that is summarised below.

5.7 The strategies broadly address some of the health issues raised in the health profiles as well as addressing more local concerns. For both strategies the key aim is to improve health and well-being and reduce inequalities. A key indicator in achieving the overall aim will be to see a reduction in the difference of life expectancies between the least and most deprived areas. In terms of the Minerals Local Plan, the ambition is to assist in delivering the priorities and objectives where appropriate. The HIA will assess how the policies of the Plan can help to achieve them.

Figure 3: Derby City Health and Wellbeing Strategy summary



6. Screening

- 6.1 The first stage within a HIA is to undertake a screening exercise which determines whether a HIA is appropriate and so ensures that any potential health impacts are addressed in the correct manner⁸.
- 6.2 The screening exercise recommended by the Department for Health consists of five questions⁹, which are in table two, that the policy team should answer as they have a fuller understanding of the background and context of the plan and its policies. Where any of the answers to the questions are yes, the HIA should move onto the next stages, which was the case for the Minerals Local Plan.

Table 2: Screening questions for HIA

Screening Question	Answer with Outline of Health Impact
Will the proposal have a direct impact on health, mental health and wellbeing?	NO: There is potential for some impacts on health and wellbeing as a result of the operation of mineral sites, both on those people living in nearby local communities and on those people employed in the mineral industry. However, the likely impact of these is not significant enough to be considered direct.
Will the policy have an impact on social, economic and environmental living conditions that would indirectly affect health?	YES: There is likely to be impacts on the local amenity of communities lying close to mineral sites, which has the potential to detrimentally impact on health and wellbeing matters. However, the restoration of mineral sites has the potential to improve environmental conditions through the creation of green and blue infrastructure which can also assist in offsetting greenhouse gas emissions and adapting to climate change which may have a positive impact on health and wellbeing.
Will the proposal affect an individual's ability to improve their	YES: Restored mineral sites can increase access to open space and nature or provide informal/formal recreational after uses such sailing/fishing which

⁸ NHS. 2003. Deciding if a Health Impact Assessment is required (screening for HIA)

¹⁰ <https://www.derby.gov.uk/health-and-social-care/public-health/hwb/>

⁹ Department of Health. 2010. Health Impact Assessment of Government Policy: A guide to carrying out a Health Impact Assessment of new policy as part of the Impact Assessment Process.

own health and wellbeing?	has potential to improve an individual's ability to improve their own health and wellbeing.
Will there be a change in demand for or access to health and social care services?	NO: Mineral working should not alter the demand for health and social care other than the general ongoing demand linked to manual work and associated health and safety issues services.
Will the proposal have an impact on global health?	NO: The Plan is a local plan and therefore although there is potential to contribute to climate change through emissions this is not considered to be on such a scale to have a significant impact on global health.

6.3 The outcome of the screening showed two out of the five questions have been answered 'yes' to potential health impacts. This is a trigger that the further stages of HIA are necessary due to the Derbyshire and Derby Minerals Local Plan having potential health impacts.

7. Scoping

- 7.1 With the results from the screening triggering the next stage of the HIA it is now important to identify what these health impacts could be. This is known as scoping¹⁰.
- 7.2 The purpose of scoping is to identify and prioritise the health impacts relating to minerals development to establish those which need to be examined further in the appraisal stage. As part of this it is important to examine and establish the health profile of Derbyshire and Derby to set a baseline. It is also important to review any identified priorities and aims in relation to health and wellbeing to ensure that the Minerals Local Plan will do what it can to address and not negatively contribute to any of the issues. Appendix 1 sets out a detailed health profile for Derbyshire and Derby which has been summarised at section 2 whilst section 5 sets out the health and well-being priorities.
- 7.3 The details of the scoping exercise can be found in Appendix 2. It identifies and examines the potential health impacts associated with minerals development and explores how these are related to the baseline data and priorities for health in Derbyshire and Derby.
- 7.4 The scoping exercise identified seven potential impacts (or risks) that were considered significant enough to warrant further consideration through the appraisal stage. These impacts are (categorised in terms of the Rainbow Model) previously set out in section 2.

Living and working conditions:

- Disruption to public water supplies.

General socio-economic, cultural and environmental conditions:

- Anxiety associated with potential for development
- Noise/Light pollution
- Dust/Air pollution
- Temporary loss of access to open space
- Long term provision of access to open space
- Increased road traffic and safety issues

¹⁰ NHS: Health Development Agency. Introducing health impact assessment (HIA): Informing the decision-making process.

8. Appraisal and Conclusion

Appraisal

- 8.1 Having established a baseline profile of Derbyshire and Derby in relation to health and well-being, an assessment of the Pre-Submission Draft Minerals Local Plan was undertaken, based on the methodology set out at Section 4. Tables setting out the results of the Appraisal can be found at Appendix 3. The purpose of the Appraisal is to assess the likely impacts on health of implementing the Plan's policies and to identify actions that would improve the Plan in respect of minimising negative health impacts and delivering positive outcomes for health.
- 8.2 It was not considered appropriate to complete an assessment of the all the Plan's policies on a policy-by-policy basis as there is no direct link between the majority of the policies and health and wellbeing impacts. The approach taken was to consider the potential impacts to health and well-being on a risk basis to establish the level of risk they present. An appraisal was then undertaken on the extent to which, and effectiveness of how the Plan deals with the risk, which enables specific recommendations to be made to improve the Plan.

Actions

- 8.3 The appraisal established a series of actions that if implemented would improve the way in which Pre-Submission Draft Plan addresses the potential health impacts from mineral development. The recommended actions were as follows:

- 8.4 **Impact: Disruption to public water supplies for drinking and sanitation**

Action: Suggest adding the wording (in italics) prudent use *and protection* of natural resources to Policy SP1 to ensure that the protection of surface and groundwater flows is covered in this high-level policy although this issue is covered in detail in Policy DM8.

- 8.5 **Impact: Anxiety associated with potential for minerals development in the local area**

Actions: None - the Plan encourages at Chapter 11 pre-application engagement with the local community and local interest groups to help to establish potential impacts of a proposed development and improve

the quality of decisions on planning applications. The MPAs Statements of Community Involvement provides information on how consultation on local plans and planning applications will be carried out to ensure effective engagement with the general public.

8.6 The technique of hydraulic fracturing to exploit oil and gas has generated widespread public concerns. The Plan has adopted a precautionary approach to this method of exploitation and through Policy SP16 has introduced the concept of a 500-metre separation distance between oil and gas sites and sensitive receptors such as houses.

8.7 **Impact: Increase in noise and light pollution levels around mineral sites**

Actions: Include reference to possibility of using routing agreements to avoid sensitive receptors in reasoned justification for Policy DM16 Planning Obligations. Encourage employment of best practice methods to reduce noise/light pollution

8.8 **Impact: Increase in dust and air quality pollution around mineral sites**

Actions: Include reference to possibility of using routing agreements to avoid sensitive receptors in reasoned justification for Policy DM16 Planning Obligations. Encourage best practice methods to reduce dust/air pollution

8.9 **Impact: Reduction in access to public rights of way and outdoor open space in areas affected by mineral extraction**

Actions: None public access is covered sufficiently by the Plan and particularly Policy DM13 which covers the protection of the existing rights of way network and its users. Where this is not practicable, it requires satisfactory provision for temporary or permanent diversions, which are of at least an equivalent convenience, quality or interest.

8.10 **Impact: Increase in access to open space provision through the restoration of mineral sites**

Actions: None - the Plan through Policies DM13 and DM15 which seek to ensure improved public access and effective mineral restoration should achieve positive impacts for health and well-being. DM13 seeks to achieve improvements and enhancements to the rights of way network

whilst DM15 seeks benefits to the local and wider community from restoration.

8.11 **Impact: Increased road traffic and safety issues around mineral sites**

Actions: Policy DM3 is considered to comprehensively cover increased road traffic and highway safety. References could be included in the Plan to the need to provide safe and attractive walking and cycling routes for employees where possible and to provide cycling storage for employees. Any new cycle and pedestrian paths should be linked with wider networks to ensure that people can use them to access facilities and community hubs.

Conclusions

8.12 As a result of this Health Impact Assessment both positive and negative potential impacts/health risks from the implementation of the Pre-Submission Draft Minerals Local Plan have been identified. An appraisal of these risks enabled the identification of a series of minor improvements to the Plan.

8.13 By incorporating these minor improvements into the Plan, it is considered that the potential negative health risks of the Plan will be minimised and the potential positive impacts will be maximised.

8.14 The Pre-Submission Draft Plan includes a monitoring framework containing monitoring indicators to monitor the effectiveness and continued relevance of the Plan's policies. It does not contain any specific indicators relating to health because the indicator relates to the wider policy e.g., the indicator for DM1 Protecting Local Amenity, Health, Well Being and Safety is that percentage of approved proposals meet the criteria of the policy and the target is for 100% of proposals to meet that. The trigger threshold for action is where more than 1 application is approved/won on appeal contrary to the policy in any one year.

Appendix 1: Health Profile for Derbyshire and Derby



Public Health
England



Derbyshire

Published on 03/03/2020

Area type: County
Region: East Midlands

Local Authority Health Profile 2019

This profile gives a picture of people's health in Derbyshire. It is designed to act as a 'conversation starter', to help local government and health services understand their community's needs, so that they can work together to improve people's health and reduce health inequalities.

Visit <https://fingertips.phe.org.uk/profile/health-profiles> for more area profiles, more information and interactive maps and tools.

Health in summary

The health of people in Derbyshire is varied compared with the England average. About 15.3% (19,995) children live in low income families. Life expectancy for women is lower than the England average.

Health inequalities

Life expectancy is 7.8 years lower for men and 7.1 years lower for women in the most deprived areas of Derbyshire than in the least deprived areas.

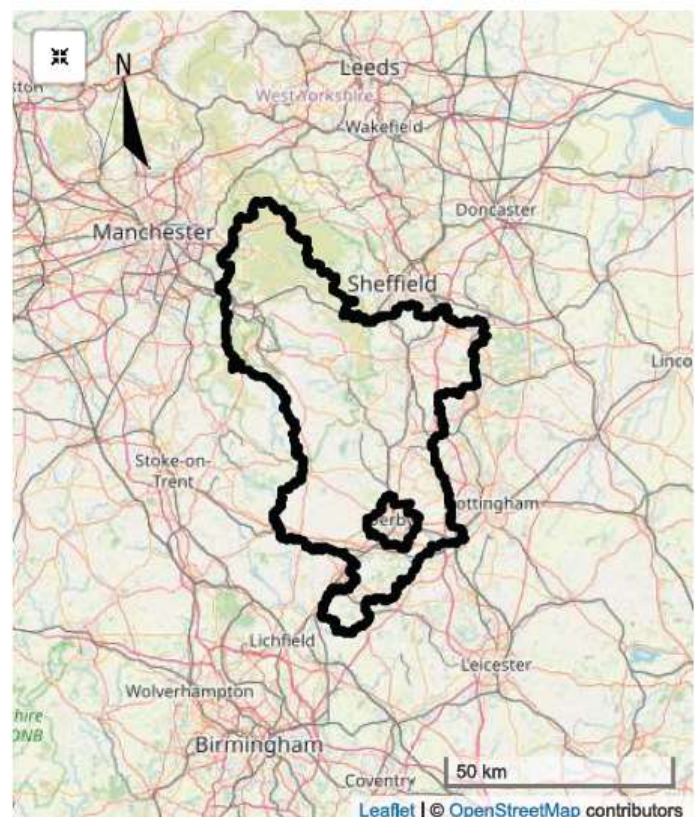
Child health

In Year 6, 18.9% (1,572) of children are classified as obese, better than the average for England. The rate for alcohol-specific hospital admissions among those under 18 is 37*, worse than the average for England. This represents 57 admissions per year. Levels of GCSE attainment (average attainment 8 score) and smoking in pregnancy are worse than the England average. Levels of teenage pregnancy are better than the England average.

Adult health

The rate for alcohol-related harm hospital admissions is 755*, worse than the average for England. This represents 6,162 admissions per year. The rate for self-harm hospital admissions is 260*, worse than the average for England. This represents 1,950 admissions per year. Estimated levels of excess weight in adults (aged 18+) are worse than the England average. The rates of new sexually transmitted infections, killed and seriously injured on roads and new cases of tuberculosis are better than the England average. The rates of statutory homelessness, violent crime (hospital admissions for violence) and under 75 mortality rate from cardiovascular diseases are better than the England average.

* rate per 100,000 population



Contains National Statistics data © Crown copyright and database right 2019
Contains OS data © Crown copyright and database right 2019
Local authority displayed with full resolution clipped boundary

Health summary for Derbyshire

Key

Significance compared to goal / England average:

Significantly worse	Significantly lower	↑ Increasing / Getting worse	↑ Increasing / Getting better
Not significantly different	Significantly higher	↓ Decreasing / Getting worse	↓ Decreasing / Getting better
Significantly better	Significance not tested	↑ Increasing	↓ Decreasing
		↑ Increasing (not significant)	↓ Decreasing (not significant)
		– Could not be calculated	→ No significant change

Life expectancy and causes of death

Indicator	Age	Period	Count	Value (Local)	Value (Region)	Value (England)	Change from previous
1 Life expectancy at birth (male)	All ages	2016 - 18	n/a	79.5	79.4	79.6	↑
2 Life expectancy at birth (female)	All ages	2016 - 18	n/a	83.0	82.9	83.2	↑
3 Under 75 mortality rate from all causes	<75 yrs	2016 - 18	7604	320.4	334.4	330.5	↓
4 Mortality rate from all cardiovascular diseases	<75 yrs	2016 - 18	1584	65.9	73.5	71.7	↓
5 Mortality rate from cancer	<75 yrs	2016 - 18	3159	131.7	133.4	132.3	↓
6 Suicide rate	10+ yrs	2016 - 18	177	8.41	8.73	9.64	↓

Injuries and ill health

Indicator	Age	Period	Count	Value (Local)	Value (Region)	Value (England)	Change from previous
7 Killed and seriously injured (KSI) rate on England's roads	All ages	2016 - 18	943	39.7	41.6	42.6 ^	–
8 Emergency hospital admission rate for intentional self-harm	All ages	2018/19	1950	260.4	200.8	193.4	↑
9 Emergency hospital admission rate for hip fractures	65+ yrs	2018/19	950	578.3	614.1	558.4	↓
10 Percentage of cancer diagnosed at early stage	All ages	2017	1720	49.1	49.1	52.2	↓
11 Estimated diabetes diagnosis rate	17+ yrs	2018	n/a	83.1	84.6	78.0	↑
12 Estimated dementia diagnosis rate	65+ yrs	2019	7507	70.5 *	72.3 *	68.7 *	↓

Behavioural risk factors

Indicator	Age	Period	Count	Value (Local)	Value (Region)	Value (England)	Change from previous
13 Hospital admission rate for alcohol-specific conditions	<18 yrs	2016/17 - 18/19	170	37.0	26.3 \$	31.6	↓
14 Hospital admission rate for alcohol-related conditions	All ages	2018/19	6162	755.4	699.5	663.7	↑
15 Smoking prevalence in adults	18+ yrs	2018	89300	13.9	15.8	14.4	↓
16 Percentage of physically active adults	19+ yrs	2017/18	n/a	67.3	65.7	66.3	↓
17 Percentage of adults classified as overweight or obese	18+ yrs	2017/18	n/a	65.3	64.4	62.0	↑

Child health

Indicator	Age	Period	Count	Value (Local)	Value (Region)	Value (England)	Change from previous
18 Teenage conception rate	<18 yrs	2017	177	14.2	17.5	17.8	↓
19 Percentage of smoking during pregnancy	All ages	2018/19	1148	16.2	14.0 ^	10.6	↑
20 Percentage of breastfeeding initiation	All ages	2016/17	5216	–	69.7	74.5	–
21 Infant mortality rate	<1 yr	2016 - 18	82	3.60	4.04	3.93	↓
22 Year 6: Prevalence of obesity (including severe obesity)	10-11 yrs	2018/19	1572	18.9	19.7	20.2	↑

Inequalities

Indicator	Age	Period	Count	Value (Local)	Value (Region)	Value (England)	Change from previous
23 Deprivation score (IMD 2015)	All ages	2015	n/a	18.5	–	21.8	–
24 Smoking prevalence in adults in routine and manual occupations	18-64 yrs	2018	n/a	23.3	26.2	25.4	↑

Wider determinants of health

Indicator	Age	Period	Count	Value (Local)	Value (Region)	Value (England)	Change from previous
25 Percentage of children in low income families	<16 yrs	2016	19995	15.3	16.6	17.0	↑
26 Average GCSE attainment (average attainment 8 score)	15-16 yrs	2018/19	348828	46.3	45.8	46.9	↑
27 Percentage of people in employment	16-64 yrs	2018/19	376400	78.0	75.2	75.6	↓
28 Statutory homelessness rate - eligible homeless people not in priority need	Not applicable	2017/18	185	0.53	0.43	0.79	↓
29 Violent crime - hospital admission rate for violence (including sexual violence)	All ages	2016/17 - 18/19	815	36.5	37.2	44.9	↑

Health protection

Indicator	Age	Period	Count	Value (Local)	Value (Region)	Value (England)	Change from previous
30 Excess winter deaths index	All ages	Aug 2017 - Jul 2018	779	30.8	30.4	30.1	↑
31 New STI diagnoses rate (exc chlamydia aged <25)	15-64 yrs	2018	2735	551.9	606.6	850.6	↑
32 TB incidence rate	All ages	2016 - 18	26	1.09	7.19	9.19	↓

For full details on each indicator, see the [definitions tab of the Local Authority Health Profiles online tool](#).

For a full list of profiles produced by Public Health England, see the fingertips website: <https://fingertips.phe.org.uk/>

Indicator value types

1,2 Life expectancy - years 3,4,5 Directly age-standardised rate per 100,000 population aged under 75 6 Directly age-standardised rate per 100,000 population aged 10 and over 7 Crude rate per 100,000 population 8 Directly age-standardised rate per 100,000 population 9 Directly age-standardised rate per 100,000 population aged 65 and over 10 Proportion - % of cancers diagnosed at stage 1 or 2 11 Proportion - % recorded diagnosis of diabetes as a proportion of the estimated number with diabetes 12 Proportion - % recorded diagnosis of dementia as a proportion of the estimated number with dementia 13 Crude rate per 100,000 population aged under 18 14 Directly age-standardised rate per 100,000 population 15,16,17 Proportion 18 Crude rate per 1,000 females aged 15 to 17 19,20 Proportion 21 Crude rate per 1,000 live births 22 Proportion 23 Index of Multiple Deprivation (IMD) 2015 score 24 Proportion 25,26 Slope index of inequality 27 Proportion 28 Mean average across 8 qualifications 29 Proportion 30 Crude rate per 1,000 households 31 Directly age-standardised rate per 100,000 population 32 Ratio of excess winter deaths to average of non-winter deaths 33 Crude rate per 100,000 population aged 15 to 64 (excluding Chlamydia) 34 Crude rate per 100,000 population

* Value compared to a goal (see below)

~ Value not published for data quality reasons

\$ Due to an issue with HES coding in Nottingham University Hospitals Trust in 2016/17, for which over 30% of records did not have a valid geography of residence assigned, this value should be treated with caution. In 2015/16, between 10% and 20% of patients that attended hospital from this area were treated at Nottingham University Hospitals Trust.

^ Aggregated from all known lower geography values

Thresholds for indicators that are compared against a goal

Indicator Name	Green	Amber	Red
12 Estimated dementia diagnosis rate (aged 65 and over)	>= 66.7% (significantly)	similar to 66.7%	< 66.7% (significantly)

You may re-use this information (not including logos) free of charge in any format or medium, under the terms of the Open Government Licence. To view this licence, visit www.nationalarchives.gov.uk/doc/open-government-licence/version/3



Derby

Published on 03/03/2020

Area type: Unitary authority
Region: East Midlands

Local Authority Health Profile 2019

This profile gives a picture of people's health in Derby. It is designed to act as a 'conversation starter', to help local government and health services understand their community's needs, so that they can work together to improve people's health and reduce health inequalities.

Visit <https://fingertips.phe.org.uk/profile/health-profiles> for more area profiles, more information and interactive maps and tools.

Health in summary

The health of people in Derby is generally worse than the England average. Derby is one of the 20% most deprived districts/unitary authorities in England and about 21% (11,060) children live in low income families. Life expectancy for both men and women is lower than the England average.

Health inequalities

Life expectancy is 10.2 years lower for men and 9.3 years lower for women in the most deprived areas of Derby than in the least deprived areas.

Child health

In Year 6, 23.0% (753) of children are classified as obese, worse than the average for England. The rate for alcohol-specific hospital admissions among those under 18 is 17*, better than the average for England. This represents 10 admissions per year. Levels of teenage pregnancy, GCSE attainment (average attainment 8 score), breastfeeding and smoking in pregnancy are worse than the England average.

Adult health

The rate for alcohol-related harm hospital admissions is 878*, worse than the average for England. This represents 2,064 admissions per year. The rate for self-harm hospital admissions is 274*, worse than the average for England. This represents 725 admissions per year. Estimated levels of smoking prevalence in adults (aged 18+) and smoking prevalence (in routine and manual occupations) are worse than the England average. The rates of new sexually transmitted infections and killed and seriously injured on roads are better than the England average. The rates of statutory homelessness, under 75 mortality rate from cardiovascular diseases and under 75 mortality rate from cancer are worse than the England average.

* rate per 100,000 population



Contains National Statistics data © Crown copyright and database right 2019
Contains OS data © Crown copyright and database right 2019
Local authority displayed with full resolution clipped boundary

Health summary for Derby

Key

Significance compared to goal / England average:

Significantly worse	Significantly lower	↑ Increasing / Getting worse	↑ Increasing / Getting better
Not significantly different	Significantly higher	↓ Decreasing / Getting worse	↓ Decreasing / Getting better
Significantly better	Significance not tested	↑ Increasing	↓ Decreasing
		↑ Increasing (not significant)	↓ Decreasing (not significant)
		– Could not be calculated	→ No significant change

Life expectancy and causes of death

Indicator	Age	Period	Count	Value (Local)	Value (Region)	Value (England)	Change from previous
1 Life expectancy at birth (male)	All ages	2016 - 18	n/a	78.6	79.4	79.6	↑
2 Life expectancy at birth (female)	All ages	2016 - 18	n/a	82.3	82.9	83.2	↓
3 Under 75 mortality rate from all causes	<75 yrs	2016 - 18	2250	377.2	334.4	330.5	↑
4 Mortality rate from all cardiovascular diseases	<75 yrs	2016 - 18	486	82.8	73.5	71.7	↓
5 Mortality rate from cancer	<75 yrs	2016 - 18	835	143.1	133.4	132.3	↑
6 Suicide rate	10+ yrs	2016 - 18	51	7.73	8.73	9.64	↑

Injuries and ill health

Indicator	Age	Period	Count	Value (Local)	Value (Region)	Value (England)	Change from previous
7 Killed and seriously injured (KSI) rate on England's roads	All ages	2016 - 18	217	28.1	41.6	42.6	–
8 Emergency hospital admission rate for intentional self-harm	All ages	2018/19	725	274.4	200.8	193.4	↑
9 Emergency hospital admission rate for hip fractures	65+ yrs	2018/19	240	541.2	614.1	558.4	↑
10 Percentage of cancer diagnosed at early stage	All ages	2017	417	45.9	49.1	52.2	↓
11 Estimated diabetes diagnosis rate	17+ yrs	2018	n/a	80.6	84.6	78.0	↓
12 Estimated dementia diagnosis rate	65+ yrs	2019	2299	77.2 *	72.3 *	68.7 *	↑

Behavioural risk factors

Indicator	Age	Period	Count	Value (Local)	Value (Region)	Value (England)	Change from previous
13 Hospital admission rate for alcohol-specific conditions	<18 yrs	2016/17 - 18/19	30	16.8	26.3	31.6	–
14 Hospital admission rate for alcohol-related conditions	All ages	2018/19	2064	877.7	699.5	663.7	↑
15 Smoking prevalence in adults	18+ yrs	2018	37972	19.2	15.8	14.4	↑
16 Percentage of physically active adults	19+ yrs	2017/18	n/a	65.1	65.7	66.3	↑
17 Percentage of adults classified as overweight or obese	18+ yrs	2017/18	n/a	65.5	64.4	62.0	↑

Child health

Indicator	Age	Period	Count	Value (Local)	Value (Region)	Value (England)	Change from previous
18 Teenage conception rate	<18 yrs	2017	94	22.3	17.5	17.8	↓
19 Percentage of smoking during pregnancy	All ages	2018/19	482	15.7	14.0	10.6	↓
20 Percentage of breastfeeding initiation	All ages	2016/17	2226	66.7	69.7	74.5	↓
21 Infant mortality rate	<1 yr	2016 - 18	51	5.28	4.04	3.93	↓
22 Year 6: Prevalence of obesity (including severe obesity)	10-11 yrs	2018/19	753	23.0	19.7	20.2	↑

Inequalities

Indicator	Age	Period	Count	Value (Local)	Value (Region)	Value (England)	Change from previous
23 Deprivation score (IMD 2015)	All ages	2015	n/a	27.8	–	21.8	–
24 Smoking prevalence in adults in routine and manual occupations	18-64 yrs	2018	n/a	33.2	26.2	25.4	↑

Wider determinants of health

Indicator	Age	Period	Count	Value (Local)	Value (Region)	Value (England)	Change from previous
25 Percentage of children in low income families	<16 yrs	2016	11060	21.0	16.6	17.0	↑
26 Average GCSE attainment (average attainment 8 score)	15-16 yrs	2018/19	118819	43.2	45.8	46.9	↑
27 Percentage of people in employment	16-64 yrs	2018/19	118900	74.1	75.2	75.6	↑
28 Statutory homelessness rate - eligible homeless people not in priority need	Not applicable	2017/18	272	2.55	0.43	0.79	↑
29 Violent crime = hospital admission rate for violence (including sexual violence)	All ages	2016/17 = 18/19	385	48.7	37.2	44.9	↓

Health protection

Indicator	Age	Period	Count	Value (Local)	Value (Region)	Value (England)	Change from previous
30 Excess winter deaths index	All ages	Aug 2017 - Jul 2018	211	28.7	30.4	30.1	↑
31 New STI diagnoses rate (exc chlamydia aged <25)	15-64 yrs	2018	1300	790.2	606.6	850.6	↑
32 TB incidence rate	All ages	2016 - 18	88	11.4	7.19	9.19	↓

For full details on each indicator, see the [definitions tab of the Local Authority Health Profiles online tool](#).

For a full list of profiles produced by Public Health England, see the fingertips website: <https://fingertips.phe.org.uk/>

Indicator value types

1,2 Life expectancy - years 3,4,5 Directly age-standardised rate per 100,000 population aged under 75 6 Directly age-standardised rate per 100,000 population aged 10 and over 7 Crude rate per 100,000 population 8 Directly age-standardised rate per 100,000 population 9 Directly age-standardised rate per 100,000 population aged 65 and over 10 Proportion - % of cancers diagnosed at stage 1 or 2 11 Proportion - % recorded diagnosis of diabetes as a proportion of the estimated number with diabetes 12 Proportion - % recorded diagnosis of dementia as a proportion of the estimated number with dementia 13 Crude rate per 100,000 population aged under 18 14 Directly age-standardised rate per 100,000 population 15,16,17 Proportion 18 Crude rate per 1,000 females aged 15 to 17 19,20 Proportion 21 Crude rate per 1,000 live births 22 Proportion 23 Index of Multiple Deprivation (IMD) 2015 score 24 Proportion 25,26 Slope index of inequality 27 Proportion 28 Mean average across 8 qualifications 29 Proportion 30 Crude rate per 1,000 households 31 Directly age-standardised rate per 100,000 population 32 Ratio of excess winter deaths to average of non-winter deaths 33 Crude rate per 100,000 population aged 15 to 64 (excluding Chlamydia) 34 Crude rate per 100,000 population

* Value compared to a goal (see below)

~ Due to an issue with HES coding in Nottingham University Hospitals Trust in 2016/17, for which over 30% of records did not have a valid geography of residence assigned, this value should be treated with caution. In 2015/16, between 10% and 20% of patients that attended hospital from this area were treated at Nottingham University Hospitals Trust.

§ Aggregated from all known lower geography values

Thresholds for indicators that are compared against a goal

Indicator Name	Green	Amber	Red
12 Estimated dementia diagnosis rate (aged 65 and over)	>= 66.7% (significantly)	similar to 66.7%	< 66.7% (significantly)

You may re-use this information (not including logos) free of charge in any format or medium, under the terms of the Open Government Licence. To view this licence, visit www.nationalarchives.gov.uk/doc/open-government-licence/version/3

Appendix 2: Scoping Health Impact Assessment

Health Impact	Will the health impacts affect the whole population or will there be differential impacts within the population?	Will the health impacts be difficult to remedy or have an irreversible impact?	Will the health impacts be medium to long term?	Are the health impacts likely to generate public concern?	Are the health impacts likely to generate cumulative and or synergistic impacts?	Prioritising Health Impacts: Will the impacts have an important positive or negative impact on health?
Living and working conditions						
Working Environment						
<p>Quarries require staff to operate them. As a working environment, quarrying is one of the most dangerous industries to work in. The Health and Safety Executive have published an approved code of practice and guidance on health and safety at quarries.</p> <p>Improving workplace health and wellbeing is one of the themes of the City and County Health and Wellbeing Strategies</p>	<p>The health impacts will only directly affect those employed in the minerals industry, but the subsequent effects (not limited to health) may be felt more widely (i.e. family and friends).</p>	<p>The range of hazards presented could have a range of health impacts some of which could be difficult to remedy or have irreversible impacts and equally could have impacts in the medium to long term.</p>	<p>Not in relation to the plan making process. Health and safety concerns in workplaces will be of concern to those employed in the industry, but this is unlikely to generate concern for the Plan.</p>	<p>Due to the range of impacts it is difficult to ascertain if cumulative and or synergistic impacts could be generated.</p>	<p>The health impacts of employment in quarries have the potential to have a significant impact on health of those employed in the industry.</p> <p>However, this is something that is controlled externally from the planning system and the impact is limited in terms of the proportion of the population affected.</p>	

Health Impact	Will the health impacts affect the whole population or will there be differential impacts within the population?	Will the health impacts be difficult to remedy or have an irreversible impact?	Will the health impacts be medium to long term?	Are the health impacts likely to generate public concern?	Are the health impacts likely to generate cumulative and or synergistic impacts?	Prioritising Health Impacts: Will the impacts have an important positive or negative impact on health?
Unemployment						
<p>The Health Development Agency and National Health Service recognise there is a relationship between unemployment and poor health, although causation is not proven. Studies have shown that there is a positive association between mortality and unemployment for all age groups and that there is a strong association between unemployment and measures of psychological and psychiatric morbidity, with a reversal of effects upon re-employment.</p> <p>As an employer, quarries can aid in the provision of good</p>	<p>This positive impact will be experienced by those who benefit from employment at quarries. The extent of this benefit may be felt more widely (i.e. family).</p>	<p>This is a positive impact, although as quarrying employment can be temporary, unemployment could return, removing the positive impact and reintroducing the negative health impacts associated with unemployment.</p> <p>Some health impacts increase within a year of job loss (e.g. suicide), cardiovascular mortality accelerates after two or three years and continues for the next 10-15 years, thus meaning impacts could occur in both the short, medium and long term and that the negative impacts of unemployment may not be easily overcome through provision of employment.</p>	<p>No – this is a positive impact (i.e. potential reduction in unemployment through provision of jobs).</p>	<p>Unemployment can affect a range of health issues and so provision of employment is likely to generate cumulative and synergistic positive impacts.</p>	<p>Although provision of employment is identified as having the potential to have a positive impact on health, the level of employment derived from mineral extraction is not considered great enough to be classed as an 'important' impact due to number of employees in the sector.</p>	

Health Impact	Will the health impacts affect the whole population or will there be differential impacts within the population?	Will the health impacts be difficult to remedy or have an irreversible impact?	Will the health impacts be medium to long term?	Are the health impacts likely to generate public concern?	Are the health impacts likely to generate cumulative and or synergistic impacts?	Prioritising Health Impacts: Will the impacts have an important positive or negative impact on health?
quality skilled jobs and training schemes, which could help to alleviate such health issues.						
Agriculture and food production						
Loss of productive agricultural land to minerals development could result in reduced home food production and thus increased food costs (need to import), potentially impacting, indirectly, on diet and health. The need to retain productive agricultural land in the UK may become more important in the future due to climate change. Also potential for impact in terms of loss of employment and degradation of	Whole population will be affected. Those on lower incomes could feel financial pressure and thus resultant health impacts more acutely. Farming communities would be directly affected by loss of employment and changes to community structure.	Loss of high-quality agricultural land can be irreversible if it is not possible to reclaim it (soil quality and land change issues). Changes to employment and community structure unlikely to be reversible. Diet is a widely tackled health issue and is a behaviour that can be altered; however, some of the health impacts	Pressure on land will become more acute in the long term. The impacts on community wellbeing have the potential to be medium to long term, if not addressed. The health impacts of diet vary and can be short and long term.	Loss of agricultural land and impact on food production and farming communities will possibly generate concern. Unsure if the possible resultant health impacts would generate concern	Cumulative impact of loss of significant areas of agricultural land is a possibility; however, the overall take of agricultural land through minerals development is minimal when compared to the level of agricultural land still in existence.	The loss of agricultural land and farming communities is recognised as an important factor, however the links to diet and thus health are considered to be indirect and thus not significantly negative.

Health Impact	Will the health impacts affect the whole population or will there be differential impacts within the population?	Will the health impacts be difficult to remedy or have an irreversible impact?	Will the health impacts be medium to long term?	Are the health impacts likely to generate public concern?	Are the health impacts likely to generate cumulative and or synergistic impacts?	Prioritising Health Impacts: Will the impacts have an important positive or negative impact on health?
<p>agricultural communities.</p> <p>A healthy diet may help to prevent certain long-term diseases such as heart disease, stroke and diabetes and reduce the risk of some cancers.</p>		<p>may be irreversible.</p>				
Housing						
<p>There are a range of health impacts associated with housing, including: excessive cold (physiological) increasing risk of respiratory and cardiovascular conditions and hypothermia noise (psychological) caused by lack of sufficient sound insulation affecting physical and mental</p>	<p>Health impacts will vary depending on the quality of housing people are living in.</p>	<p>This is a positive impact. Materials derived from mineral extraction can be used to build new housing or upgrade older housing stock</p>	<p>The health benefits associated with the provision of high-quality housing should continue into the long term, as people continue to live in well built homes. However, the role of minerals in this is limited as there are other</p>	<p>No – this is a positive impact</p>	<p>Yes – there are a multitude of health impacts associated with housing which link to and will impact on health in a wider sense.</p>	<p>There are many potential health impacts associated with (poor) housing which the provision of minerals could aid in overcoming. However, there are a significant number of influences between the raw material and the end product which means the positive impacts from mineral provision cannot be considered 'important'.</p>

Health Impact	Will the health impacts affect the whole population or will there be differential impacts within the population?	Will the health impacts be difficult to remedy or have an irreversible impact?	Will the health impacts be medium to long term?	Are the health impacts likely to generate public concern?	Are the health impacts likely to generate cumulative and or synergistic impacts?	Prioritising Health Impacts: Will the impacts have an important positive or negative impact on health?
<p>health (stress and anxiety)</p> <p>The provision of sufficient, suitable housing is a priority for Derbyshire and Derby.</p> <p>Mineral extraction provides many raw materials used in building and energy industries which could help overcome these hazards and reduce negative health impacts.</p>			<p>influencing factors.</p>			
Water and sanitation						
<p>Minerals development has the potential to impact upon the flow and quality of surface water as well as groundwater through use of water and run-off from mineral</p>	<p>If groundwater sources are affected, all those served by that resource could be impacted.</p>	<p>Severe dehydration can be serious and cause fits, brain damage and can sometimes be fatal. Therefore, its impact can be irreversible and long term, although this is only in the worst cases. However, simple short-term measures such as water bowsers or bottled water brought to communities</p>	<p>Impact on water resources is likely to generate public concern, both in relation to its pollution and the resultant impact on the environment and</p>	<p>There is the potential for cumulative impacts, particularly if both drinking water and water for sanitation are impacted concurrently.</p>		<p>Disruption and pollution of water supplies and water for sanitation has the potential to have a negative impact on public health.</p>

Health Impact	Will the health impacts affect the whole population or will there be differential impacts within the population?	Will the health impacts be difficult to remedy or have an irreversible impact?	Will the health impacts be medium to long term?	Are the health impacts likely to generate public concern?	Are the health impacts likely to generate cumulative and or synergistic impacts?	Prioritising Health Impacts: Will the impacts have an important positive or negative impact on health?
<p>operations and processes which may cause disruption to the water table or contamination/damage to aquifers and source protection zones</p> <p>The body needs water to avoid dehydration and its associated health impacts.</p> <p>Water is also very important for sanitation. Poor sanitary conditions can lead to the spread of disease and are likely to cause issues in terms of mental wellbeing and general quality of life.</p>	<p>Direct pollution to local watercourses will more directly affect the immediately surrounding communities and those downstream from the point of pollution</p>	<p>affected would easily remedy the situation and therefore it is unlikely that dehydration would be a realistic concern.</p> <p>The impacts of diseases spread by poor sanitation vary but will include some medium and long term impacts.</p>		<p>also on human health (although perhaps to a lesser extent for the latter).</p>		

Health Impact	Will the health impacts affect the whole population or will there be differential impacts within the population?	Will the health impacts be difficult to remedy or have an irreversible impact?	Will the health impacts be medium to long term?	Are the health impacts likely to generate public concern?	Are the health impacts likely to generate cumulative and or synergistic impacts?	Prioritising Health Impacts: Will the impacts have an important positive or negative impact on health?
General socio-economic, cultural, and environmental conditions						
Anxiety						
<p>The potential for change and new mineral development (especially using new technologies such as hydraulic fracturing) and the perceived risk of flooding can cause anxiety and stress about the potential impacts of the development (both on health and other matters).</p> <p>A priority of the Derbyshire Health and Wellbeing Strategy is to build mental health and wellbeing across the life course whilst Derby's are to give people a good start in</p>	<p>The impacts will affect those living/working in close proximity to mineral workings. Those with a predisposition to anxiety or with limited knowledge/ experience of mineral workings may experience this impact more acutely.</p>	<p>Once sites are operational and perceived impacts are replaced with real impacts, the health impacts are likely to reduce (although may be replaced with other impacts associated with the operational phase, see other discussions). It is possible that the impact on mental health could have medium to long term impacts, especially if considered in relation to existing or additional concerns/impact of actual mineral working.</p>	<p>The likelihood of stress occurring is high, although it is uncertain as to whether this in itself will be a cause of public concern, it is more the operational issues causing the stress that are likely to generate public concern</p>	<p>There is potential for cumulative impacts when combined with the health impacts associated with working of minerals sites which will follow the period of stress during the allocation of sites and planning application stages.</p>	<p>Yes. As the plan making and planning application process can cover a long period of time, there is potential for the resultant anxiety and stress to be significant for some, particularly if it is contributing to a pre-existing health or wellbeing issue.</p> <p>The restoration of mineral sites can alleviate anxiety where schemes to help prevent flooding are included and where informal/formal recreational after uses are provided.</p>	

Health Impact	Will the health impacts affect the whole population or will there be differential impacts within the population?	Will the health impacts be difficult to remedy or have an irreversible impact?	Will the health impacts be medium to long term?	Are the health impacts likely to generate public concern?	Are the health impacts likely to generate cumulative and or synergistic impacts?	Prioritising Health Impacts: Will the impacts have an important positive or negative impact on health?
<p>life and for people to live and age well.</p> <p>In terms of mineral development, the Plan allocates sites for particular minerals providing certainty in terms of location. However, for all minerals it also provides polices to enable supply where there are unforeseen needs over the Plan period.</p>						
Noise/Light Pollution						
<p>Minerals development can bring about changes to noise/light pollution levels in the area. At quarries where industrial mineral is processed 24 hour working is common. Such factors</p>	<p>The impacts will affect those living/working in close proximity to mineral workings. The impact will vary from person to person.</p>	<p>The increase in pollution will only occur during the operational phase of any development (i.e. temporarily). However, some of the associated health impacts could continue into the medium and long term (i.e. those associated with stress).</p> <p>The potential for positive impacts derived from the provision of a tranquil</p>		<p>Yes. This is one of the most direct and obvious impacts of mineral work and the one that can be most obviously associated with impacts on health.</p>	<p>There is the potential for cumulative impacts due to the range of associated health impacts.</p>	<p>Noise/light pollution can have a direct impact on the local population and is likely to be a significant area of concern. There are both direct and indirect potential health impacts from this and thus this is considered to have the</p>

Health Impact	Will the health impacts affect the whole population or will there be differential impacts within the population?	Will the health impacts be difficult to remedy or have an irreversible impact?	Will the health impacts be medium to long term?	Are the health impacts likely to generate public concern?	Are the health impacts likely to generate cumulative and or synergistic impacts?	Prioritising Health Impacts: Will the impacts have an important positive or negative impact on health?
<p>are likely to cause health impacts. Annoyance. The impact varies from person to person but can result in an increased possibility of violence or feelings of powerlessness and frustration associated with longer term health impacts e.g. stress and illness.</p> <p>Noise/light pollution exposure during sleep may increase blood pressure, heart rate and body movements</p> <p>Possible increase in cardiovascular and mental health issues such as depression and stress</p> <p>Potential impact on cognitive performance of children. Can lead to poor educational attainment in children</p>		<p>environment following restoration may go some way to overcoming these long-term impacts.</p>				<p>potential for an important negative impact on health.</p> <p>There is also potential for a positive impact through restoration.</p>

Health Impact	Will the health impacts affect the whole population or will there be differential impacts within the population?	Will the health impacts be difficult to remedy or have an irreversible impact?	Will the health impacts be medium to long term?	Are the health impacts likely to generate public concern?	Are the health impacts likely to generate cumulative and or synergistic impacts?	Prioritising Health Impacts: Will the impacts have an important positive or negative impact on health?
<p>with associated problems later in life (such as poor job prospects, a lack of skills and qualifications)</p> <p>Positive impacts can be derived from quiet areas following restoration e.g., Access to tranquil areas of nature can reduce stress.</p>						
Dust /Air Quality						
<p>Minerals development can increase the levels of dust particles and release gases from transportation of minerals and operation of on-site machinery (including sulphur dioxide, nitrogen dioxide and ozone).</p>	<p>The impacts will be felt most acutely by those in close proximity to sites, but pollutants can also travel long distances and affect wider air quality. In the case of greenhouse gases there is the impact on climate change which will</p>	<p>Elevated levels and/or long-term exposure to pollutants can lead to serious symptoms and impact on human health. However, moderate air pollution levels are unlikely to have any serious short-term effect</p>	<p>The range of benefits outlined in the Natural England report indicates that impacts will be provided in both the short and long term.</p>	<p>There is the potential for irreversible, long-term impacts (for example where air pollution exacerbates a pre-existing condition).</p>	<p>There is the potential for cumulative impacts due to the range of associated health impacts</p>	<p>Air pollution can have a direct impact on the local population and is likely to be a significant area of concern. There are a range of potential health impacts from this and thus this is considered to have the potential for an important negative impact on health</p>

Health Impact	Will the health impacts affect the whole population or will there be differential impacts within the population?	Will the health impacts be difficult to remedy or have an irreversible impact?	Will the health impacts be medium to long term?	Are the health impacts likely to generate public concern?	Are the health impacts likely to generate cumulative and or synergistic impacts?	Prioritising Health Impacts: Will the impacts have an important positive or negative impact on health?
<p>At very high levels, the following health impacts can result from pollutants:</p> <ul style="list-style-type: none"> -Nitrogen dioxide, sulphur dioxide and ozone: irritation of the airways of the lungs, increasing the symptoms of those suffering from lung diseases. Particles: Fine particles can be carried deep into the lungs where they can cause inflammation and a worsening of heart and lung disease. -Carbon monoxide: This prevents the uptake of oxygen by the blood. 	<p>have much wider impacts.</p>	<p>(particularly for the young and those in a good state of health).</p> <p>There is the potential for irreversible, long-term impacts (for example where air pollution exacerbates a pre-existing condition)..</p>				

Health Impact	Will the health impacts affect the whole population or will there be differential impacts within the population?	Will the health impacts be difficult to remedy or have an irreversible impact?	Will the health impacts be medium to long term?	Are the health impacts likely to generate public concern?	Are the health impacts likely to generate cumulative and or synergistic impacts?	Prioritising Health Impacts: Will the impacts have an important positive or negative impact on health?
Temporary loss of access to open space						
<p>Access to nature and green space can be an integral part of the health care system. This includes the creation of healthy resilient communities, provision of life supporting systems and creation of venues for active lifestyle choices and physical challenge.</p> <p>In the short term, during the operation of mineral sites, there is potential loss of access to green space/temporary closure of public rights of way. However, in the long term, as part of restoration, there is the opportunity to both significantly increase</p>	<p>Natural England reports highlight that provision of green space benefits everyone, but that the least well off benefit the most. It also notes that the provision of green space has the most impact when created in urban areas.</p>	<p>The negative impact is temporary and relatively short term, but the positive effects will be felt in the medium to long term.</p>	<p>Natural England reports highlight a range of benefits which indicates that impacts will be provided in both the short and long term.</p>	<p>Possibly. Loss of access to countryside will be particularly felt where there are existing communities nearby that use the open space/access. As the benefits are in the long term, these might not as easily be recognised by the public</p>	<p>Yes – Natural England reports highlight that the provision of green space demonstrates cost effective health outcomes, which should thus result in savings and improvements elsewhere in health care. It also contributes to improvements in mental wellbeing through the provision of calming and restorative natural environments.</p>	<p>In the long-term provision of green space has significant potential to contribute positively to healthy communities.</p> <p>The use of temporary diversions/alternative access can mitigate this.</p> <p>The importance of the provision of high-quality open space and opportunities for sport and recreation and the protection and enhancement of rights of way in delivering healthy communities through planning is highlighted in NPPF</p>

Health Impact	Will the health impacts affect the whole population or will there be differential impacts within the population?	Will the health impacts be difficult to remedy or have an irreversible impact?	Will the health impacts be medium to long term?	Are the health impacts likely to generate public concern?	Are the health impacts likely to generate cumulative and or synergistic impacts?	Prioritising Health Impacts: Will the impacts have an important positive or negative impact on health?
the quantity of green space/natural environment and the quality and level of access/rights of way to the land.						
Long term provision of Open Space						
<p>The Department of Health publication 'Protecting people. Promoting health: A public health approach to violence prevention for England' (2012) indicates that access to green space can reduce incidents and problems with violence in communities.</p> <p>The health impacts of violence can be both direct (e.g. injury) and indirect (e.g. mental wellbeing and quality of life).</p>	<p>The impacts are likely to be felt most acutely by those living in communities close to the green spaces provided (i.e. close to mineral sites). However, the indirect benefits will spread wider.</p>	<p>This is a positive impact that will continue into the long term.</p> <p>Both – immediate in terms of the direct benefits, but longer term as the indirect benefits spread.</p>	<p>No – this is a positive impact</p>	<p>Yes – violence is linked to a range of other health impacts and issues, as set out in the report.</p>	<p>The importance of the provision of high-quality open space and opportunities for sport and recreation and the protection and enhancement of rights of way in delivering healthy communities through planning is highlighted in NPPF.</p>	

Health Impact	Will the health impacts affect the whole population or will there be differential impacts within the population?	Will the health impacts be difficult to remedy or have an irreversible impact?	Will the health impacts be medium to long term?	Are the health impacts likely to generate public concern?	Are the health impacts likely to generate cumulative and or synergistic impacts?	Prioritising Health Impacts: Will the impacts have an important positive or negative impact on health?
Road and pedestrian safety						
<p>Road traffic collisions are the single largest cause of premature death and serious injury in the country. Injuries from collisions are an important health issue not only due to the potentially devastating effect they have on those who are killed or injured, but also because of the consequences and repercussions for their families and society.</p> <p>Minerals development will increase the level of traffic on road around minerals sites and on the strategic highway network.</p>	<p>The impacts of road and pedestrian safety will be felt greatest by those living near or using routes which will be used by vehicles generated from minerals development. Wider impacts will affect friends and families of those involved in accidents.</p>	<p>Serious injury can have both medium- and long-term impacts that can be difficult to remedy and have irreversible impacts. There is also potential for impact on the health and wellbeing of family and friends of those injured or killed in road traffic accidents which could continue into the medium and long term.</p>	<p>Yes – traffic and the impacts of accidents are very tangible to the general public.</p> <p>Thus, any development which will contribute to traffic levels is likely to be a cause of public concern.</p>	<p>Yes – for example an injury sustained could result in reduced capacity for work and thus the health impacts associated with unemployment could be caused. Accidents are likely to cause wider impacts on the health and wellbeing of family and friends</p>	<p>Minerals development will increase the traffic on the roads in close proximity to a site and will place extra strain on the highway network. Road and pedestrian safety could be impacted upon and thus there is potential for important negative impacts on health.</p>	

Appendix 3: Appraisal

Impact (risk)	Severity ¹¹	Likelihood ¹²	Risk Rating	Discussion of Minerals Local Plan Pre-Submission Draft Plan and Actions to Improve Plan
Disruption to public water supplies for drinking and sanitation	Major (-)	Improbable	Low	<p>The health consequences of disruption to water supplies and quality could be potentially irreversible and remain in the long term. Additionally, any disruption would affect a large proportion of the population (wider than the local scale). Mental well-being can be affected by people being fearful of recurring events. However, the protection of water supplies is strictly controlled mainly by the Environment Agency (EA) who issue licences for abstraction and monitor water supply. The planning system operates on the assumption that regulatory bodies such as the EA will operate effectively and therefore the risk of this impact can be considered low.</p> <p>The protection of water supplies (and its quality) however, remains an important issue for the Minerals Local Plan. Policy SP1 Sustainable Minerals Development sets out high level policy requirements for sustainable minerals development, the remaining policies of the Plan add detail to those requirements. SP1 criterion 5) requires proposals to ensure the prudent use of natural resources including water to support their long-term conservation and criterion 18) seeks to ensure that proposals improve water efficiency.</p> <p>Criterion 5 could require the protection of natural resources e.g. water in principle as well as their prudent use to ensure their long-term conservation although their protection is adequately covered by Policy DM5.</p> <p>Development Management Policy DM8 Water Management and Flood Risk covers water resources in further detail. It states that <i>'Proposals for minerals development and minerals related development will be</i></p>

¹¹ Severity is a measure of how serious the impact would be if it did occur. Categories to be used: Major – Moderate – Minor. Whether it is positive or negative is indicated in brackets (+) / (-)

¹² Likelihood is a measure of how probable is it that the impact would occur. Categories to be used: Probable – Possible – Improbable

Impact (risk)	Severity ¹¹	Likelihood ¹²	Risk Rating	Discussion of Minerals Local Plan Pre-Submission Draft Plan and Actions to Improve Plan
				<p><i>supported where it can be demonstrated that they would not result in unacceptable impacts on:</i> <i>surface water quality, quantity and flows;</i> <i>groundwater quality, quantity, levels and flows;</i> <i>flood flows and conveyance routes, flood storage capacity, the integrity of flood defences and local land drainage systems; or</i> <i>where development proposals are located close to river corridors, the physical integrity of watercourses through suitable easements between a river bank and the proposed excavation area.</i></p> <p><i>It further requires at criterion ii) that proposals will be expected to demonstrate how water quality, both surface and groundwater will be managed to ensure no deterioration and where possible enhancement to help support and meet the wider requirements of the Water Framework Directive.</i></p> <p>The policy sufficiently seeks the protection of quality, quantity and flows of both surface and ground water to ensure that the likelihood of the impact occurring is improbable resulting in a low risk rating.</p> <p>Actions: Suggest adding the wording prudent use <i>and protection</i> of natural resources to Policy SP1</p>
Anxiety associated with potential for minerals development in the local area	Minor to Moderate (-)	Probable	Medium	<p>The health impacts associated with a perceived or potential change to the local environment are likely to vary across the population depending on pre-existing health conditions and life experiences. Additionally, the cause will only be temporary – once an allocation or planning application is completed, the uncertainty is removed (it may be replaced with concerns regarding actual impacts; this is considered separately).</p>

Impact (risk)	Severity ¹¹	Likelihood ¹²	Risk Rating	Discussion of Minerals Local Plan Pre-Submission Draft Plan and Actions to Improve Plan
				<p>Change is likely to be an emotive issue in communities and thus it is probable that this impact will occur. On this basis the risk associated with this potential impact can be considered medium.</p> <p>The Plan needs to ensure that during both during the allocation and planning application process the impact on communities in this regard is managed effectively. This could include ensuring sufficient and appropriate levels of information provision and encouraging operators to engage with local communities about their intentions for the development of the site. The Plan in Chapter 11 at paragraph 11.2.3 sets out,</p> <p><i>In the preparation of planning applications, applicants should consult the MPA's local list of information requirements for the validation of planning applications¹³⁹ and are encouraged to discuss their proposals with the MPA before submitting a planning application. Early informal consultation with the MPA and statutory consultees will help to identify potential impacts of proposals and potential measures to avoid or minimise them as well as the range of technical assessment work that may be required. Pre-application engagement with the local community and local interest groups can also help to establish potential impacts of a proposed development and improve the quality of decisions on planning applications. The MPA's Statement of Community Involvement provides information on how consultation on planning applications will be carried out.</i></p> <p>However, it is not considered necessary for such measures to be covered in policy, partially as the risk rating is medium (not high) and therefore it is considered that the text at paragraph 11.2.3 adequately deals with this issue.</p> <p>The technique of hydraulic fracturing to exploit oil and gas has generated widespread public concerns. The Plan has adopted a precautionary approach to this method of exploitation and has introduced the concept of a 500-metre separation distance between oil and gas sites and sensitive receptors such as houses.</p>

Impact (risk)	Severity ¹¹	Likelihood ¹²	Risk Rating	Discussion of Minerals Local Plan Pre-Submission Draft Plan and Actions to Improve Plan
				<p>Actions None</p>
Increase in noise levels and light pollution in and around mineral sites	Moderate (-)	Probable	High	<p>An increase in noise and light pollution from minerals development will only be temporary, however many quarries especially hard rock ones are large scale and long term and there is potential for the health impacts resulting to continue into the medium to long term (although there is some potential for this to be overcome to a certain extent through the provision of tranquil environments, with positive sounds, through restoration). As one of the most obviously and easily felt impacts that will inevitably come with minerals development it is likely that this impact will occur. With an almost certain likelihood and a direct impact on the local community the risk rating can be considered high.</p> <p>As set out in the Health Protection Agency's report¹³ there is the potential to reduce the health impacts associated with annoyance and stress caused by noise through the provision of mitigation. The Plan should therefore seek the mitigation of noise pollution to minimise its impact on the local communities. The report also highlighted the impact of noise on the cognitive performance of children, suggesting that policy mechanisms should be in place particularly to prevent minerals development affecting sensitive receptors such as schools and nurseries. Light pollution can cause similar impacts to noise pollution and should be mitigated effectively.</p> <p>The Vision seeks to deliver sustainable minerals development which encompasses supporting the health, well-being, safety and amenity of local communities. Objective 5 of the Plan seeks to protect the existing amenity, health, safety and well-being of local communities from visual impacts, noise, dust, vibration, emissions to air, light pollution, land instability, ground contamination and transport impacts by avoiding,</p>

¹³ Health Protection Agency 'Environmental Noise and Health in the UK' 2010

Impact (risk)	Severity ¹¹	Likelihood ¹²	Risk Rating	Discussion of Minerals Local Plan Pre-Submission Draft Plan and Actions to Improve Plan
				<p>minimising and mitigating potential adverse impacts, including any cumulative impacts of minerals development, taking into account the legacy of the minerals industry and other industrial development in the Plan area.</p> <p>Policy SP1 Sustainable Minerals Development seeks through criterion 9) to protect the amenity, health, well-being and safety of local communities by avoiding, minimising and mitigating adverse impacts. This high-level policy is given detail through the Plan's Development Management Policies.</p> <p>Policy DM1 protects local amenity health, safety and well-being from unacceptable adverse impacts of mineral development through criteria which include noise and light pollution. It adds that <i>Where appropriate, separation distances between a development and other land uses, including sensitive receptors, may be applied.</i> This enables impacts on schools, nurseries etc to be taken into account.</p> <p>Consideration should be given to the use of Planning Obligations to control the local routing of HGVs where they pass sensitive receptors to noise such as schools/nurseries.</p> <p>Actions: Include reference to possibility of using routing agreements in reasoned justification for Policy DM16 Planning Obligations. Encourage employment of best practice methods to reduce noise/light pollution</p>
Increase in dust and air pollution in and around mineral sites	Major (-)	Probable	High	<p>An increase in dust and air pollution from minerals development will only continue across the life of the extraction phase (i.e. temporarily), however it has the potential to impact more widely than the local area and the health impacts have the potential to be irreversible and continue into the long term. As one of the most obviously and easily felt impacts that will inevitably come with minerals development it is</p>

Impact (risk)	Severity ¹¹	Likelihood ¹²	Risk Rating	Discussion of Minerals Local Plan Pre-Submission Draft Plan and Actions to Improve Plan
				<p>likely that this impact will occur. With an almost certain likelihood and a direct impact on the both the local and wider community the risk rating can be considered high.</p> <p>The Vision seeks to deliver sustainable minerals development which encompasses supporting the health, well-being, safety and amenity of local communities. Objective 5 of the Plan seeks to protect the existing amenity, health, safety and well-being of local communities from visual impacts, noise, dust, vibration, emissions to air, light pollution, land instability, ground contamination and transport impacts by avoiding, minimising and mitigating potential adverse impacts, including any cumulative impacts of minerals development, taking into account the legacy of the minerals industry and other industrial development in the Plan area.</p> <p>Policy SP1 Sustainable Minerals Development seeks through criterion 9) to protect the amenity, health, well-being and safety of local communities by avoiding, minimising and mitigating adverse impacts. This high-level policy is given detail through the Plan's Development Management Policies.</p> <p>Policy DM1 protects local amenity health, safety and well-being from unacceptable adverse impacts of mineral development through criteria which include dust and emissions to air and air quality. It adds that, <i>Where appropriate, separation distances between a development and other land uses, including sensitive receptors, may be applied.</i> This enables impacts on schools, nurseries, elderly people's homes etc to be taken into account.</p> <p>Consideration should be given to the use of Planning Obligations to control the local routing of HGVs where they pass sensitive receptors to dust such as schools/nurseries/elderly people's homes.</p>

Impact (risk)	Severity ¹¹	Likelihood ¹²	Risk Rating	Discussion of Minerals Local Plan Pre-Submission Draft Plan and Actions to Improve Plan
				<p>Policy SP1 seeks through criterion 8) to minimise any adverse impacts from vehicles used in the extraction and transport of minerals by road including emissions and seeks to maximise more sustainable transport modes. Policy DM3 Transport requires that proposals maximise sustainable modes of transport and seek to maximise measures to reduce emissions through the use of efficient logistics, low carbon fuels and vehicles to extract and transport the mineral to market.</p> <p>Actions: Include reference to possibility of using routing agreements in reasoned justification for Policy DM16 Planning Obligations. Encourage best practice methods to reduce dust/air pollution</p>
Reduction in access to public rights of way and outdoor open space in areas affected by mineral extraction	Minor (-)	Possible	Low	<p>The loss of access to open space as a result of minerals development will be temporary as in the majority of schemes some form of public access can be provided through restoration. Also, public rights of way can be temporarily diverted during the operational period in some instances, thus retaining the access and meaning that the impact will only apply to some mineral's developments. The risk of this health impact is therefore considered low because there are obvious mitigation measures that can overcome the issue in most instances, and if not, it is only of a temporary duration.</p> <p>It should be noted that some of the mineral sites are large scale and long term and therefore the term temporary can be construed as misleading as if suffering a negative impact semi-permanent may be more of an appropriate description</p> <p>The Vision seeks to deliver sustainable minerals development which encompasses supporting the health, well-being, safety and amenity of local communities. Objective 6 of the Plan seeks to protect, conserve and enhance the natural, built and historic environment, of the Plan area including its distinctive landscapes, green and blue infrastructure, habitats, wildlife, historic buildings, parks and gardens, archaeology,</p>

Impact (risk)	Severity ¹¹	Likelihood ¹²	Risk Rating	Discussion of Minerals Local Plan Pre-Submission Draft Plan and Actions to Improve Plan
				<p>ancient woodlands and veteran trees, soils and best and most versatile agricultural land, green belt, tranquil areas, dark skies and other important features and assets, by avoiding, minimising and mitigating potential adverse impacts, including any cumulative impacts, of minerals development, taking into account the legacy of the minerals industry and other industrial development in the Plan area. Objective 9 seeks to support high quality restoration which provides maximum local and strategic benefits to the area and local communities.</p> <p>Policy SP1 Sustainable Minerals Development seeks through criterion 11) to protect, conserve and enhance the Plan area's natural, built and historic environment by avoiding, minimising and mitigating adverse impacts and by seeking multifunctional environmental enhancements during restoration and through criterion 15) to provide high quality restoration and after care at the earliest opportunity, taking into account aviation safety, and result in an appropriate after-use, providing maximum local and strategic benefits to both local communities and the wider area</p> <p>This high-level policy is given detail through the Plan's Development Management Policies. The inclusion of a dedicated Development Management policy (DM13) on public access is welcomed. This covers the protection of the existing rights of way network and its users. Where this is not practicable, satisfactory proposals for temporary or permanent diversions, which are of at least an equivalent convenience, quality or interest must be provided.</p> <p>Actions: None - public access is covered sufficiently by the Plan and particularly Policy DM13.</p>

Impact (risk)	Severity ¹¹	Likelihood ¹²	Risk Rating	Discussion of Minerals Local Plan Pre-Submission Draft Plan and Actions to Improve Plan
Increase in access to open space provision through restoration of mineral workings	Moderate (+)	Probable	High	<p>Increasing access to open space can impact on health by increasing physical activity and reducing cardiovascular disease and obesity. Mental health can also be improved from access to nature and green and blue spaces.</p> <p>The health effects of provision of public access to open space from the restoration of mineral workings will continue long term and be of a fairly significant nature (enabling self-management and contributing to a number of the health priorities for the area). The vast majority of restoration will either reinstate previous levels of open space or increase public access and potentially add links to other rights of way. Some schemes will produce a more tranquil and beneficial environmental than the original use. Other schemes may result in a recreational after-use e.g., fishing/sailing. There is therefore considered to be a high positive risk as there is a good level of potential for a fairly significant positive impact.</p> <p>The Vision seeks to deliver sustainable minerals development which encompasses supporting the health, well-being, safety and amenity of local communities. Objective 9 seeks to support high quality restoration which provides maximum local and strategic benefits to the area and local communities.</p> <p>Policy SP1 Sustainable Minerals Development seeks through criterion 9) to protect the amenity, health, well-being and safety of local communities by avoiding, minimising and mitigating adverse impacts. Criterion 11) seeks to protect, conserve and enhance the Plan area's natural, built and historic environment by avoiding, minimising and mitigating adverse impacts and by seeking multifunctional environmental enhancements during restoration and criterion 15) seeks to provide high quality restoration and after care at the earliest opportunity, taking into account aviation safety, and result in an</p>

Impact (risk)	Severity ¹¹	Likelihood ¹²	Risk Rating	Discussion of Minerals Local Plan Pre-Submission Draft Plan and Actions to Improve Plan
				<p>appropriate after-use providing maximum local and strategic benefits to both local communities and the wider area.</p> <p>This high-level policy is given detail through the Plan's Development Management Policies.</p> <p>Policy DM13 Public Access states, <i>Improvements and enhancements to the rights of way network will be sought and, where possible, recreational access to restored minerals workings will be increased. Opportunities will be taken for the provision of new routes and links between existing routes, especially at the restoration stage with priority given to meeting the of any adopted Rights of Way Improvement Plans covering the Plan area as well as any adopted strategies for greenways and/or cycle networks. Where necessary, these matters may need to be secured using planning obligations.</i></p> <p>Policy DM15 Restoration, Aftercare and After-use states, <i>Proposals should seek to provide benefits to the local and wider community including enhanced natural capital, enhancement and creation of biodiversity and geodiversity interests, linkages to other green infrastructure initiatives and ecosystems, enhanced landscape character, improved public access, recreation or tourism opportunities.</i></p> <p>Actions: None - the Plan through Policies DM13 and DM15 which seek to ensure improved public access and effective mineral restoration should achieve positive impacts for health and well being.</p>
Increased road traffic and safety issues around mineral sites	Moderate to Major (-)	Possible	High	<p>The health impacts of road traffic accidents can be significant and, in some instances, fatal. The impact is not limited to those directly affected. There will inevitably be an increase in road traffic as a result of minerals development. However, it does not automatically follow that this will lead to safety issues as use of suitable access and roads and use of routeing agreements can mitigate and minimise the potential impacts. The risk can be considered high because although</p>

Impact (risk)	Severity ¹¹	Likelihood ¹²	Risk Rating	Discussion of Minerals Local Plan Pre-Submission Draft Plan and Actions to Improve Plan
				<p>there are obvious mitigation measures that can overcome the issue in most instances, the impact can be severe and will be a major source of public concern.</p> <p>The Vision seeks to achieve that mineral development will be located designed and operated in ways which maximise sustainable associated transport. Objective 4 seeks to minimise the potential adverse impacts of minerals development by road-based transport, including emissions, and maximise the use of alternatives to road transport including rail, water, conveyor and pipeline.</p> <p>Policy SP1 seeks through criterion 8) to minimise any adverse impacts from vehicles used in the extraction and transport of minerals by road including emissions and seeks to maximise more sustainable transport modes. This high-level policy is given detail through the Plan's Development Management Policies Policy DM3 Transport requires that proposals maximise sustainable modes of transport and seek to maximise measures to reduce emissions through the use of efficient logistics, low carbon fuels and vehicles to extract and transport the mineral to market.</p> <p>Proposals for minerals development using road transport will only be supported where it can be demonstrated that:</p> <ol style="list-style-type: none"> 1) road transport is the only practicable or environmentally preferable alternative; 2) Proposed access arrangements would not have any significant adverse impacts on highway safety, air quality including carbon emissions, local and residential amenity, the environment or the effective operation of the highway network; 3) The highway network is of an appropriate standard for use by the traffic generated by the development or can be suitably improved.

Impact (risk)	Severity ¹¹	Likelihood ¹²	Risk Rating	Discussion of Minerals Local Plan Pre-Submission Draft Plan and Actions to Improve Plan
				<p>The requirement for Transport Assessment to accompany planning application to enable consideration of these matters is welcomed. The Plan particularly through Policy DM3 comprehensively covers increased road traffic and highway safety.</p> <p>Actions: Provide safe and attractive walking and cycling routes for employees where possible</p> <ul style="list-style-type: none"> • Provide cycling storage for employees • Link any new cycle and pedestrian paths with wider networks to ensure that people can use them to access facilities and community hubs