

Minerals and Waste Joint Plan



Sustainability Appraisal Supporting Paper

Consideration of health in assessment of Mineral and Waste Policies and Sites

October 2016

North Yorkshire, City of York and the North York Moors Joint Minerals and Waste Plan.

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Introduction

North Yorkshire County Council, City of York Council and the North York Moors National Park Authority are preparing a Minerals and Waste Joint Plan, the role of which is to guide future minerals and waste development across the Joint Plan area. Figure 1 shows the extent of this area.



Figure 1 Minerals and Waste Joint Plan Area

To date the Joint Plan has been through a number of early stages of consultation, including an initial consultation, which announced the production of the Plan; an Issues and Options consultation, which explored the most important issues faced by the area in terms of extracting minerals and managing waste and established a 'long list' of possible policies and sites; a supplementary sites consultation, and then, most recently, a Preferred Options consultation, which set out the Joint Plan Authorities' first statement of the sites and policies they would prefer to pursue.

The Government requires Local Plans such as the Joint Plan to consider health issues. In particular, promoting healthy communities is a key goal of planning policy, with the National Planning Policy Framework stating as a core planning principal that planning should *"take account of and support local strategies to improve health, social and cultural wellbeing for all..."*

Specifically, in relation to preparing Local Plans for minerals, the NPPF states that these should *"Set out environmental criteria, in line with the policies in this Framework, against which planning applications will be assessed so as to ensure that permitted operations do not have unacceptable adverse impacts on...human health"*.

The situation is similar in relation to planning for waste. For instance, the National Planning Policy for Waste states that “*positive planning plays a pivotal role in delivering this country’s waste ambitions through....helping to secure the re-use, recovery or disposal of waste without endangering human health*”.

Both the NPPF and the National Planning Policy for Waste place an emphasis on taking health advice from relevant health bodies, with the NPPF in particular stating: “*Local planning authorities should work with public health leads and health organisations to understand and take account of the health status and needs of the local population...*”.

One of the key ways in which health has been integrated into the Joint Plan is through the sustainability assessment of the plan. Sustainability Appraisal is an assessment tool that is legally required for Local Plans¹. SA can help deliver sustainable development through the plan by scrutinising options and policies for their sustainability implications. To date a series of reports have been produced as part of the sustainability appraisal process. These reports include:

- A Sustainability Appraisal Scoping Report, which established a ‘baseline’ for the overall assessment process, as well as a series of objectives to measure the sustainability of the Joint Plan against;
- An SA update report that considered the Joint Plan’s options against the sustainability objectives;
- A further SA update report that considered preferred options for sites and policies against the SA objectives.

The purpose of this ‘supporting paper’ is to outline how health has been considered through the assessment process, to summarise the key findings of the assessment, and to consider whether there are any opportunities to strengthen the assessment process in relation to health.

What do we mean by Health?

While it can seem obvious what is meant by health, it is worth defining what health means and why it is relevant to a minerals and waste plan. The World Health Organisation has, since 1948, used a widely accepted definition of health:

“Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity”²

Minerals and waste development such as quarrying or waste disposal could potentially negatively impact on physical, mental and social wellbeing in a variety of ways, including:

¹ Sustainability Appraisal is a statutory requirement under the Planning and Compulsory Purchase Act 2004 and Strategic Environmental Assessment is required by European law (SEA Directive 2001/42/EC). The two assessments are being undertaken simultaneously in relation to the Joint Plan under the term Sustainability Appraisal.

² World Health Organisation, 1948. Preamble to the constitution of the World Health Organisation as adopted by the International Health Conference, New York, 18 – 22 June, 1946 (and entered into force on 7 April, 1948) [URL: <http://www.who.int/about/definition/en/print.html>]

- **Directly**, through possibly dangerous working practices, pollution of land, air pollution (e.g. dust, fumes), surface or groundwater pollution or through the generation of noise, vibration or odours;
- **Indirectly**, through generating traffic, which in turn might increase pollution or cause accidents; by reducing access to facilities or opportunities that may previously have led to health benefits (e.g. through diverting rights of way); through increasing exposure to risk (such as flood risk) or by changing the character of a place (which might cause problems for local communities, for example);
- **Cumulatively or synergistically**, for instance, where a number of developments close to each other generate increased or new health impacts.

There may also be positive impacts:

- **Restoration of minerals or waste sites** can represent opportunities for health and wellbeing gains, such as when landfill sites are landscaped to deliver accessible open space and recreation opportunities, or when quarries are managed as flood water storage areas at the end of their lives;
- Minerals and waste development can be important sources of **employment**. According to The Government's NHS choices website "the characteristics of work – activity, social interaction, identity and status – are proven to be beneficial to our physical and mental health"³.

While national planning guidance stresses the importance of avoiding unacceptable impacts on health and taking opportunities to improve health, planning for minerals and waste is a strategic exercise and evidence gathered to support the plan should be proportionate, particularly as detailed health impacts may often be more appropriately investigated through planning applications or mitigated through permitting procedures. In particular, for pollution, the NPPF states that "*local planning authorities should focus on whether the development itself is an acceptable use of land, and the impact of the use, rather than the control of processes or emissions themselves where these are subject to approval under pollution control regimes*". Additionally, the National Planning Policy for Waste states that while consideration of likely impacts on the local environment and amenity is important '*waste planning authorities should avoid carrying out their own detailed assessment of epidemiological or other health studies*'.

Consideration of Health through the Sustainability Appraisal Process to Date

Health is a core component of sustainable development. The United Nations agreed a series of sustainable development goals for 2030 in September 2015. At the heart of these goals is a commitment to '**ensure healthy lives and promote well-being for all at all ages**'⁴.

³ NHS Choices, 2016. Is Work Good for your Health? [URL: <http://www.nhs.uk/Livewell/workplacehealth/Pages/work-is-good-for-health.aspx>]

⁴ United Nations General Assembly, 2015. Resolution adopted by the General Assembly on 25 September 2015: Transforming our world: the 2030 Agenda for Sustainable Development [URL: http://www.un.org/ga/search/view_doc.asp?symbol=A/RES/70/1&Lang=E]

Even before this goal was established, health was seen as a core requirement of strategic environmental assessment⁵ and thus sustainability appraisal. For instance, the Annex 1 of the SEA Directive lists topics which can be considered in an environmental report, including human health.

Several agencies have issued guidance on how health should be considered in strategic environmental assessment and sustainability appraisal, and the extent to which the appraisal process can integrate the assessment processes and procedures that are used as part of health impact assessments. According to the Association of Public Health Observatories (APHO), now part of Public Health England: *“proper coverage of human health in SEA means a separate Health Impact Assessment is not necessary”*⁶. We have compared Department of Health Guidance on Health Impact Assessment with SEA Guidance as part of the process of compiling this report, and show the results in Appendix 2.

At each stage of the SA Process undertaken to date health issues have been considered, as illustrated by Table 1 below.

Sustainability Appraisal Stages to Date	How Health was considered
Scoping Stage	-Establishment of the relationship of the Joint Plan to other relevant health plans and programmes; -Collection of baseline health information; -Identification of key population and human health issues in the Joint Plan Area; -Establishment of sustainability appraisal objectives and sub objectives, including a health and wellbeing objective as well as a range of environmental quality objectives that support health and wellbeing
Issues and Options Update Report	Assessment of the draft vision, objectives and policy options of the Joint Plan against the SA objectives, including the health and wellbeing objective.
Preferred Options Update Report	Further assessment of the draft vision, objectives and preferred policies and sites in the Joint Plan against the SA objectives, including the health and wellbeing objective.

Table 1: How Health has been Considered at Key Stages of the SA Process

Scope of the Sustainability Appraisal in Relation to Health

In spring 2013, early on in the development of the Mineral and Waste Joint Plan a Sustainability Appraisal Scoping Report was produced for consultation. The first stage of most sustainability appraisals is called a scoping phase. The Government’s Practical Guide to the SEA Directive divides the scoping phase into 5 key steps:

- A1: Identifying other relevant plans and programmes and environmental protection objectives;
- A2: Collecting baseline information;

⁵ See footnote 1 for an explanation of how Strategic Environmental Assessment has been integrated into the Joint Plan’s Sustainability Appraisal

⁶ Public Health England, undated. Application of SEA [URL: <http://www.apho.org.uk/resource/view.aspx?RID=74634>]

- A3: Identifying environmental problems;
- A4: Developing SEA / SA objectives
- A5: Consulting on the scope of SEA / SA.

Health has been an important consideration across each of these steps.

Task A1: Identifying other relevant plans and programmes and environmental protection objectives

The SEA Directive establishes that the Environmental Report shall include information on the relationship of the plan or programme being assessed with other plans or programmes. The Sustainability Appraisal scoping report included a review of the relevance of health related plans and programmes, including consideration of their relevance to the Joint Plan and the SA process. This element of the SA process is kept under review, and recent updates are included in the list of plans relevant to health at Appendix 1.

Task A2: Collecting baseline information and Task A3: Identifying Environmental Problems

Baseline data was collated across a broad range of health issues pertinent to health. This included statistics directly related to health such as life expectancy at birth, mortality, coronary heart disease mortality, cancer mortality, respiratory disease mortality and road deaths and injuries. It also included numerous statistics and maps on environmental factors that may influence health that may also be impacted by either minerals or waste development. Table 2 examines the baseline data considered in the scoping report and its relevance to human health.

Category of Baseline Data	Datasets considered relevant to health	Associated health issues identified in the baseline
Human Health	<ul style="list-style-type: none"> -Life expectancy at birth; -Mortality rate -Standardised mortality ratios for coronary heart disease and respiratory diseases; -Incidence of cancer per 100,000 people; -Number of people killed or seriously injured; -ESA and incapacity benefit claimants 	<ul style="list-style-type: none"> -North Yorkshire and York have generally high life expectancy, but some locations like Scarborough have slightly lower life expectancy; -A higher mortality rate in the Plan Area is likely to be due to a higher number of older people living in the area; -There is considerable variation in mortality across the Plan Area from heart disease and cancer, though the incidence of respiratory disease is generally lower than England as a whole; -Most areas have rates of ESA and incapacity benefit claimants that are lower than Great Britain as a whole.
Biodiversity, flora and fauna	<ul style="list-style-type: none"> -Green Infrastructure networks; -Ecosystem Services 	<ul style="list-style-type: none"> -Green Infrastructure provides a variety of functions such as opportunities for recreation and flood risk management; -Significant parts of the Plan Area provide ecosystem services such as climate regulation, the regulation of water flow, food provision and recreation opportunities, all of which are important for health. -Several habitats that deliver important ecosystem services are declining nationally in their ability to deliver those services – for

		instance farmland is becoming less able to regulate climate or hazards.
Water and soil	<ul style="list-style-type: none"> -Groundwater Source Protection Zones; -Water Framework Directive Status; -Surface water flooding / groundwater flooding / floodplain extent -Shoreline management -Threats to soils; -Best and Most Versatile agricultural land. 	<ul style="list-style-type: none"> -Some areas in the Plan Area are particularly important for protecting potable groundwater supplies; -Pollution from agriculture, industry, sewage and the water industry affects many water bodies (which could affect those reliant on water abstractions for drinking water); -Significant parts of the Plan Area lie in Flood Zone 3 where development is likely to flood putting lives and wellbeing at risk; -Surface water flooding and groundwater flooding also present risks where they occur in the Plan Area; -Coastal flooding is a risk in some places and the Shoreline Management Plan prioritises a policy of 'Hold the Line' close to some coastal settlements; -The Plan Area includes some areas of very high quality agricultural land (important for local food supply) - Soil erosion and soil compaction are significant threats to soil quality in some parts of the Plan Area.
Air	<ul style="list-style-type: none"> -Air Quality Management Areas; -PM10, sulphur dioxide, Benzene, nitrous oxides, and ozone concentrations are present in parts of the Plan Area. 	<ul style="list-style-type: none"> -There are 4 Air Quality Management Areas in North Yorkshire and 3 in York where actions are being taken to reduce air pollution to benefit health; -Air pollutants may have health effects (such as irritation of the airways and may cause or worsen respiratory, and in some cases cardiovascular, diseases).
Climatic Factors	<ul style="list-style-type: none"> -Climate change temperature and rainfall projections (UKCP09) -Sea level rise projections; -Local authority CO2 emissions; -Predicted vulnerabilities 	<ul style="list-style-type: none"> -Summer temperatures are, on present trends, likely to be 3.3 degrees warmer than the pre-industrial average, while winter temperatures are likely to be 3 degrees warmer. Summers are likely to be drier, while winters are likely to be wetter; -Sea levels will rise, while extreme weather event may become more prevalent; -Emissions of CO2 have fallen in recent years across North Yorkshire; -This will increase pressure on health and emergency services.
Additional environmental issues	<ul style="list-style-type: none"> -Minerals restoration; -Tranquillity 	<ul style="list-style-type: none"> -Minerals sites are restored to a range of afteruses, including for recreation and flood storage (which can deliver opportunities for health improvement or resilience to flood hazard) -The plan area includes some important tranquil places such as the National Park and Areas of Outstanding Natural Beauty. These

		places enjoy a relative lack of noise and development (benefiting the wellbeing of residents and some visitors)
Economy, employment, education and deprivation	-Economically active and unemployment and underemployment rates; -Indices of deprivation	-The Plan Area has lower levels of unemployment than Britain as a whole; -Some parts of the Plan Area are ranked more highly on the indices of multiple deprivation. -Work and access to the benefits that work may bring can be beneficial for health.

Table 2: Baseline Data and Issues with Links to Health

Task A4: Developing SA Objectives

Following a review of the relevant plans and baseline issues a series of 17 sustainability objectives were identified. These objectives were designed as a way of focussing the assessment on topics that are important to the betterment of the environmental, social and economic situation in the plan area. By using these objectives, the policy options and sites put forward by the plan could be tested to determine the extent that they help to deliver locally focussed sustainable development.

An SA Framework was created in which more detail was added to each SA objective so that assessors could appraise policies accurately. This involved showing sub objectives and indicators that would be considered when assessing the plan. A similar SA framework was used for the assessment of sites and included the same headline SA objectives, though where the policy SA Framework focussed on strategic issues, the Sites’ SA Framework included assessor questions which focussed on site specific issues. The full SA Framework can be seen in the [Sustainability Appraisal Scoping Report](#) while the version of the SA Framework used for assessing sites can be found in the [Site Identification and Assessment Methodology](#).

A specific health objective was included in the SA:

Protect and improve the wellbeing, health and safety of local communities

Several other SA objectives also helped address health issues indirectly. Table 3, below, shows the SA objectives most relevant to health:

SA Objective (Grey shading: objective supports health / Green Shading: Health specific objective)	Policy SA sub objectives with direct or indirect benefits for health	Site SA ‘assessor questions’ with direct or indirect benefits for health
1. Protect and enhance biodiversity and geodiversity and improve habitat connectivity	Includes a number of sub objective that will help deliver recreational and hazard regulation services, e.g. - Provide opportunities for people to access the natural environment; -Maximise the potential for the creation of new habitats	-Does allocating the Site represent an opportunity for people wishing to access the natural environment, or will allocating the Site block access? - Is there an opportunity to improve the connections between, increase the area of, or improve the condition of nationally important

		habitats?
2. Enhance or maintain water quality and supply and improve efficiency of water use	<ul style="list-style-type: none"> -Ensure that Water Framework Directive status objectives for surface and groundwater are not compromised by maintaining or improving upon ecological and chemical status -Protect groundwater source protection zones; 	<ul style="list-style-type: none"> -Would future development of the Site be likely to affect surface or groundwater quality and quantity and would it be likely to prevent that water body reaching good status? - Would development at the Site divert water from a Source Protection Zone?
3. To reduce transport miles and associated emissions from transport and encourage the use of sustainable modes of transportation	<ul style="list-style-type: none"> -Reduce the impact of transporting minerals by road on local communities; -Safeguard or deliver valuable infrastructure that may contribute to modal shift; -Promote active travel and sustainable commuting 	<ul style="list-style-type: none"> -Would potential traffic from the Site, if developed, be routed through settlements? -Does the road system close to the Site have sufficient capacity to accommodate the levels of traffic likely to be generated by the Site if developed? -Are there opportunities for sustainable movement of minerals or waste to and from the Site, if developed? -Is the Site accessible to employees (e.g. close to a rail station or cycle route)
4. Protect and improve air quality	<ul style="list-style-type: none"> -Reduce all emissions to air from new development; -To reduce the causes and levels of air pollution in Air Quality Management Areas and seek to avoid new designations; -To minimise dust and odour, particularly where communities or other receptors may be affected; -Avoid locating development in areas of existing poor air quality where it could result in negative impacts on the health of present and future occupants / users; 	<ul style="list-style-type: none"> -Would development at the site and the associated generation of traffic, be likely to cause air pollution? - Would it be likely that significant dust would be generated? -Is the Site close to areas or populations that are sensitive to pollution or dust deposition?⁷ - Are there other Sites close by that are likely to add to any air pollution problems that might be associated with the site? - Is the Site, or are likely transport routes, in or close to an Air Quality Management Area or near to an

⁷ It should be noted that while the Sustainability Appraisal / site assessment process examines the likelihood that issues such as dust may be an issue, and in doing so enables regulators and others to comment on these issues, ultimately developments coming forward at sites will be subject to planning applications where detailed assessments will take place. Many issues, such as dealing with dust, will be considered at detail through planning applications. The planning permission may apply planning conditions to lessen a number of environmental effects, but should not specify conditions that require compliance with other regulatory regimes, such as the Environmental Protection Act. In many cases control of dust may fall within the realm of the Environmental Permitting Regulations. Environment Agency Guidance on the relationship between Planning and permitting states “When deciding on a planning application, planning authorities should: - be confident the development will not result in unacceptable risks from pollution when considering if the development is an appropriate use of land; not focus on controlling pollution where it can be controlled by other pollution regulations, such as Environmental Permitting Regulations; take advice from other consenting bodies, such as the Environment Agency, in pre-application discussions about fundamental issues that could affect whether a development is acceptable”. Environment Agency, 2012. Guidance for Development Requiring Planning Permissions and Environmental Permits”. [URL: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/297009/LIT_7260_bba627.pdf]

		<p>AQMA that is close to being declared?</p> <p>-Will possible development at a Site generate bio-aerosols and would this affect any receptors?</p> <p>-Will possible development at a Site generate significant odours?</p>
5. Use soil and land efficiently and safeguard or enhance their quality	<p>-Reduce the permanent loss of best and most versatile agricultural land;</p> <p>-Reduce the amount of derelict, contaminated, degraded and vacant / underused land;</p>	<p>-Is the Site in Agricultural Land Classification Zones 1 to 3a?</p> <p>- If the site is on contaminated land, how would its development be likely to affect the water environment?</p>
7. Respond and adapt to the effects of climate change	-To plan and implement adaptation measures for the likely effects of climate change;	<p>-Is allocating the Site likely to block the ability of neighbouring land uses to adapt to climate change?</p> <p>-Would development of the Site be likely to provide an opportunity to deliver climate change adaptation?</p>
12. Achieve sustainable economic growth and create and support jobs	-To increase the level and range of employment opportunities, particularly in deprived areas;	-Would development of the Site be likely to increase local employment opportunities?
14. Provide opportunities to enable recreation, leisure and learning	<p>-Promote recreation in the countryside and AONBs, consistent with the wider social, economic and environmental facets;</p> <p>-To contribute to networks of multifunctional green Infrastructure</p> <p>-To increase access to the public rights of way network and the wider countryside</p>	<p>-Will the Site allow an opportunity for recreation, leisure and learning through development of the site including restoration or after-use?</p> <p>-Would the Site if allocated / developed reduce access to / detract from the experience of recreation, leisure and learning opportunities including public rights of way?</p>
15. Protect and improve the wellbeing, health and safety of local communities	<p>-To minimise the impact of nuisances associated with minerals and waste development, such as noise pollution, odour and severance;</p> <p>-Reduce traffic accidents;</p> <p>-To reduce health inequalities;</p> <p>-To promote healthy living, offer opportunities for more healthy lifestyles and improve life expectancy;</p> <p>-To improve levels of wellbeing</p> <p>-To ensure the safety and security of local people and visitors</p> <p>-To ensure that pollution does not pose unacceptable risks to Health.</p>	<p>-Would development of the Site be likely to increase the level of noise, vibration, vermin, litter or other amenity impact experienced by local communities?</p> <p>-Would dust from the Site likely to have an amenity or health impact?</p> <p>-Would allocating the Site be likely to lead to increased danger to other road users or pedestrians?</p> <p>-Would development of the Site be likely to have an impact on levels of crime in the area?</p>
16. Minimise flood risk and reduce the impact of flooding	<p>-To ensure that the location and design of new development has regard to the potential risk, causes and consequences of flooding;</p> <p>-To promote opportunities for sustainable flood alleviation;</p> <p>-To reduce the number of people and properties at risk of flooding.</p>	<p>-Is the location of the Site likely to be susceptible to flooding?</p> <p>-Will allocating the Site increase the chances of flooding anywhere else?</p> <p>-Could development or restoration of the Site reduce flooding in a catchment?</p>

Table 3: Selected SA objectives and Policy Sub Objectives / Site Assessor Questions of Relevance to Health

Task A5: Consulting on the scope of SEA / SA.

Consultation on the scope of the SEA took place between May and June 2013. The Scoping Report was updated in line with the scoping consultation.

The Assessment of Policies and Sites

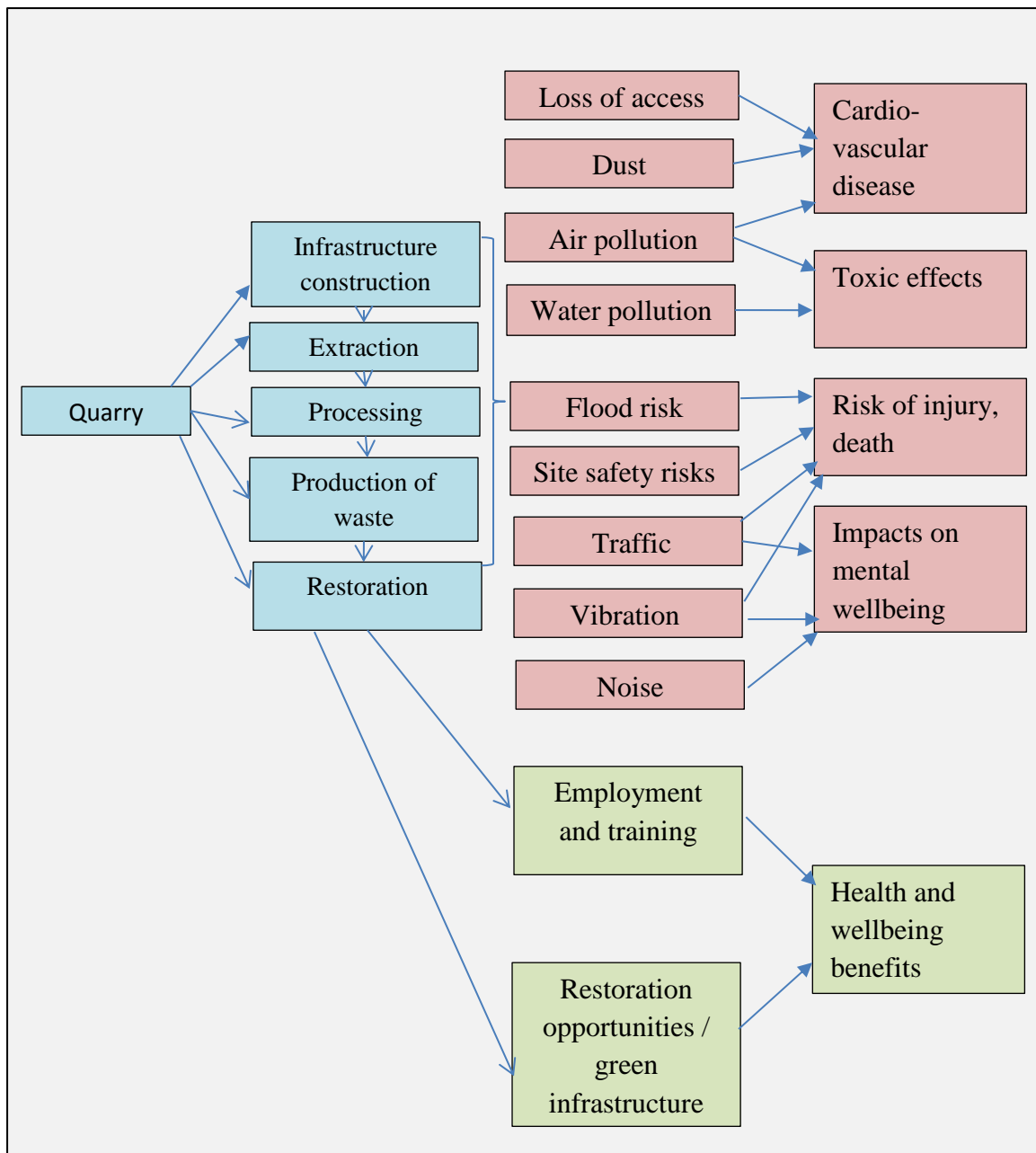
To date the Sustainability Appraisal objectives have been applied to two phases of Plan preparation: an 'issues and options' consultation and a 'preferred options and sites' consultation. At the time of writing a Publication version of the Joint Plan has been produced.

At the issues and options stage the SA made recommendations in terms of which policy options were considered to be the most sustainable options. This has helped to fulfil an important requirement of the SEA Directive, which requires the consideration of strategic alternatives. Following consultation the assessment was revised and further options arising through consultation were assessed. The findings of this stage of the assessment process can be viewed on the [Sustainability Appraisal website](#).

During the issues and options stage of sustainability appraisal we also set out some of the 'generic' sustainability effects of minerals and waste sites. It is also possible to tailor this approach so that it focuses on the generic (i.e. not policy or site specific) health effects of minerals and waste sites, as Figure 2 illustrates for a typical surface quarry site⁸. Identifying possible sustainability impacts in this way has helped assessors focus on the likely range of impacts (including possible health related impacts) from the many different development categories that may be supported by the Joint Plan. Readers should refer to [Volume 1 of the Sustainability Appraisal Update Report that accompanied the issues and options consultation](#) to review the full range of development types included in the Plan and their wider sustainability implications.

Figure 2: Hypothetical Surface Quarry Lifecycle and Categories of Impacts and Health Effects

⁸ While Figure 2 focuses on a hypothetical quarry site, many of the impacts and effects identified in the diagram are common to a wide range of both minerals and waste sites.



Following this consultation a further phase of consultation was held on the sustainability appraisal of preferred policies and sites, which was undertaken alongside the preferred options consultation on the Joint Plan which took place between 16th November, 2015 and 15th January, 2016. In this consultation we considered all the preferred policies, as well as all the preferred and discounted sites against the SA objectives and mitigation was proposed. The preferred options SA documents can be viewed on the [Sustainability Appraisal website](#).

Following this consultation, comments received were taken into account to help further refine both the Joint Plan and the assessments, including Sustainability Appraisal, that took place on the Joint Plan. This has resulted in a Publication Plan being produced. This version of the Joint Plan includes the policies and sites that the Joint Plan Authorities intend to submit for independent examination. Alongside the Joint Plan a [Sustainability Appraisal Report](#) has

been published. What follows in this report is a summary of the health findings contained in that Sustainability Appraisal Report.

Health Specific Findings of the Joint Plan Policies

In a short report such as this it is not possible to summarise in detail all the health related findings of the SA of policies and sites. However, we have summarised some of the key findings of the sustainability appraisal below.

Health Effects of the Draft Vision and Objectives

The Vision and Objectives can be viewed in the [Sustainability Appraisal Report](#).

The Vision of the Plan was appraised for compatibility with the 17 Policy SA objectives. In terms of health related SA Objective the vision performed positively as:

- Paragraph vii of the vision refers to new development *‘having the highest practicable standards of design, operation and mitigation throughout the life of the development in order to ensure that the amenity and health of local communities...are given robust protection’*;
- While health and amenity are protected by the vision, there is also reference to “a high standard of reclamation and afteruse of minerals and waste sites will be being delivered, providing a range of benefits for local communities.” This is considered to allow an opportunity for new areas to be made available to the community which could benefit local wellbeing and health in particular.

At Issues and Options the SA made a recommendation that further policies be developed to address local amenity, health and wellbeing, which by the time of preferred options and the production of the Publication Plan had occurred through policy D02.

In terms of the other health related SA objectives the vision scored broadly positively.

15. Protect and improve the wellbeing, health and safety of local communities								++
1. Biodiversity / ecosystems	2. Water	3. Traffic	4. Air	5. Land	7. Climate adaptation	12. Economy	14. Recreation and learning	16. Flood Risk
++	+	++	+	m+/++	++	++	+	++

Table 3: Health effects of the Plan’s Vision

Plan objectives were also tested for compatibility with the SA objectives. 8 of the Joint plan objectives were thought to be wholly compatible with the health objective, 3 had mixed positive and negative compatibility with health and 1 had neutral compatibility with health. The SA reported the following in relation to the health effects of the vision.

SA Objective	Impact	Analysis
15. Health /wellbeing	++	<p>Most plan objectives report positive effects on the health SA objective, because plan objectives do things like reduce traffic, protect the natural environment (which delivers ecosystem services that help deliver health outcomes), or move waste up the waste hierarchy (which means that products are less likely to be landfilled and replacement materials are less likely to be needed, thus indirectly reducing a whole range of lifecycle environmental impacts).</p> <p>Plan objectives 2,5 and 6 report mixed positive and negative effects because they broadly provide for more minerals and waste development, which could locally have negative effects (all be they largely mitigated by development management policies), but could also lead to positive effects on health through job creation.</p>

Health effects of Minerals Policies

All minerals policies were subjected to each of the 17 SA objectives. In this summary paper we have recorded the finding of the SA in relation to the specific health SA objective and provided a brief summary of the key issues observed in relation to other health related SA objectives.

It should be noted that the potential health effects of minerals and waste are in most cases at a low level of magnitude. In practice, planning and permitting processes would limit many effects. For instance, while a policy may promote minerals or waste development in a certain area, or of a certain type, the assessment attempts to indicate whether health and wellbeing indicators would be more or less likely to improve taking as a result of a policy considered together with other policies in the Plan. There is a great deal, however, that can be done to mitigate many local effects to levels that would be below any unacceptable level when actual planning applications come forward.

For this reason scores in relation to the health objective should be considered as a measure of compatibility between the policy and the health SA objective rather than an absolute measure on the impact of pursuing the policy. With this in mind, scoring in relation to health should be interpreted as follows:

‘++’: There is a high level of positive compatibility between the Health SA objective and the policy. This is likely to result in some clear health benefits, possibly at multiple locations, when development occurs;

‘m+’: There is a moderate level of positive compatibility between the Health SA objective and the policy. This is likely to result in some clear health benefits, but at a modest level or at a few locations when development occurs;

‘+’: There is a low level of positive compatibility between the Health SA objective and the policy without mitigation in place. This is likely to result in low level or limited health benefits when development occurs;

0: The policy is neither compatible or incompatible with the Health SA objective so neither benefits or disbenefits will occur;

-: There is a low level of incompatibility between the Health SA objective and the policy without mitigation in place. This is likely to result in low level or limited health disbenefits when development occurs;

'm-': There is a moderate level of incompatibility between the Health SA objective and the policy. This is likely to result in some clear health disbenefits, but at a modest level or at a few locations when development occurs;

--: There is a high level of incompatibility between the Health SA objective and the policy without mitigation in place. This is likely to result in some clear health disbenefits, possibly at multiple locations, when development occurs;

?: The relationship between the health SA objective and the policy is uncertain. More information would need to be known before possible health effects could be predicted.

The full policy wording and full assessment findings can be viewed in [appendix 2 of the Sustainability Appraisal](#).

Aggregates, Clay and Building Stone Supply Policies

The first policies in the Joint Plan concern aggregates supply. Table 4 summarises the SA scoring in relation to health.

Preferred policy	Assessment Score for health SA Objective (15)		
	S	M	L
M01: Broad geographical approach to supply of aggregates	?	?	?
M02: Provision of sand and gravel	?	?	?
M03: Overall distribution of sand and gravel provision	+/-	+/-	+/-
M04: Landbanks for sand and gravel	0	0/-	0
M05: Provision of crushed rock	-/+	-/+	-/+
M06: Landbanks for crushed rock	0	0	-/+
M07: Meeting concreting sand and gravel requirements	Policy lists sites to deliver concreting sand and gravel requirements (scored on a site by site basis)		
M08: Meeting building sand requirements	Policy lists sites to deliver building sand requirements (scored on a site by site basis)		
M09: Meeting crushed rock requirements	Policy lists sites to deliver crushed rock requirements (scored on a site by site basis)		
M10: Unallocated extensions to existing quarries	-	-	-
M11: Supply of alternatives to land won primary aggregates	0/-	0/-	0/-
M12: Continuity of supply of silica sand	-	-	-
M13: Continuity of supply of clay	0/-/+	0/-/+	0/-/+

M14: Incidental working of clay in association with other minerals	0	0	0
M15: Continuity of supply of building stone	-	-	-

Table 4: Aggregates, Clay and Building Stone Supply Preferred Policies and SA Scores

These policies had a range of potential health effects, and the assessment reported the following:

M01 - Whether or not there are any effects on the health, safety and wellbeing of communities will depend upon the location of any quarries. There may be long term benefits from restoration/reclamation but again the benefits would depend on the location and the details of the restoration scheme.

M02 - The policy sets out a total amount of provision and a land bank. Effectively the effects will be equivalent to the cumulative effects of allocated sites plus any windfall sites that meet the total provision. Taken together as a single effect the effect is partly positive (due to the benefits of minerals jobs) and partly negative (due to the overall range of effects on wellbeing). However, as development management policies and the individual site mitigation measures moderate impacts mostly down to minor negative or neutral, we have rated the combined impact as minor negative to minor positive as effects on health and wellbeing are generally not highly cumulative.

M03 - The policy sets out a broad distribution for sand and gravel. Effectively the effects will be equivalent to the cumulative effects of allocated sites. Taken together as a single effect the effect is partly positive (due to the benefits of minerals jobs) and partly negative (due to the overall range of effects on wellbeing). However, as development management policies and the individual site mitigation measures moderate impacts mostly down to minor negative or neutral, we have rated the combined impact as minor negative to minor positive as effects on health and wellbeing are generally not highly cumulative.

M04 - Elsewhere in the assessment of this policy a number of factors that contribute or detract from health and wellbeing (e.g. traffic, air quality) have been identified as potentially deteriorating and then normalising. Other issues such as noise may also behave in the same way, as land banks in the two separate areas require maintaining. This may have temporary minor negative (considering other policies in the plan) effects on health and wellbeing objective.

M05 - The policy sets out a total amount of provision and a land bank. Effectively the effects will be equivalent to the cumulative effects of allocated sites plus any windfall sites that meet the total provision. Taken together as a single effect the effect is partly positive (due to the benefits of minerals jobs and restoration schemes) and partly negative (due to the overall range of effects on wellbeing). However, as development management policies and the individual site mitigation measures moderate impacts mostly down to minor negative or neutral, we have rated the combined impact as minor negative to minor positive as effects on health and wellbeing are generally not highly cumulative.

M06 - Should additional Magnesian limestone extraction be permitted, along with additional reserves of other crushed rock resources in the longer term, this could have effects on the health and wellbeing of communities although it is not possible to identify the scale, location

and significance of any effects. By requiring landbanks to be met from outside the National Park and AONBs, this policy could have positive effects by directing quarries, and therefore traffic, away from the generally minor road network in the National Park and AONBs.

M07 – Effects are reported for individual sites referred to in the policy (see site assessments for MJP21, MJP33, MJP17 and MJP06, MJP14 and MJP07 below).

M08 - Effects are reported for individual sites referred to in the policy (see site assessments for MJP22, MJP30, MJP44 and MJP54 below).

M09 - Effects are reported for individual sites referred to in the policy (see site assessments for MJP23, MJP28, MJP29, MJP11, MJP10, MJP08 and MJP24 below).

M10 - Under this policy there may be negative effects on the health and safety of communities / residences close to extended quarries through additional / extended noise, traffic, dust etc. However, this effect would be moderated by the policy D02 'Local Amenity and Cumulative Impacts' so that any impacts would be small scale.

M11 - Harm to landscapes resulting from the visual intrusion of quarries will be lessened as recycled and secondary aggregates offset some of the demand for primary aggregates. This is countered to an uncertain degree by the possibility that new built infrastructure may be required to support this objective.

M12 - The Burythorpe site is relatively small, and while occasional buildings might be within range of dust and noise impacts, the site is well screened. Coupled with the Amenity and Cumulative Impacts development management policy, impacts are unlikely to be significant.

Blubberhouses quarry was considered through the sites assessment process. This considered that effects to local receptors of noise and dust would be of minor significance. Extending or deepening this site could amplify effects, though these effects would be moderated by the Amenity and Cumulative Impacts development management policy. Minor negative.

M13 - Effects are reported for individual sites referred to in the policy (MJP45, MJP55, MJP52).

Unallocated clay sites may have short term dust impacts during construction, though generally dust is less of an issue at these sites and would be largely mitigated by policy D:02 Local Amenity and Cumulative Impacts. Some minor effects from transport (e.g. dust, air pollution, elevated accident risk) may also result, but at a low level and depending on location. A positive effect is also recorded in relation to the jobs provided through this policy. Recreation opportunities may come in the longer term through restoration.

M14 - This policy would only support incidental clay extraction where overall environmental impacts and amenity impacts are not significantly increased, which should include consideration for health and well-being in relation to noise, lighting and transport and air and water quality. There is some uncertainty as to the consideration of 'significance' in relation to these impacts. However, development management policies, working in combination with this policy, should provide sufficient mitigation to ensure any health issues are mitigated for.

Therefore the effects from this are considered neutral.

M15 - Under this option it is likely that the health and wellbeing of more communities would be affected by quarries as there is likely to be more noise, traffic and dust. This may increase over time as more quarries become operational. It is considered that due to the generally small scale nature of building stone extraction operations and the requirement for evidence to demonstrate the contribution that the stone proposed to be worked would make to the quality of the built/historic environment, that impacts are likely to be small in scale. In addition, development management policies, such as DO2 'Local Amenity and Cumulative Impacts', would be applied, leaving only minor negative residual effects.

Hydrocarbons (Oil and Gas) Policies

Preferred policy	Assessment Score for health SA Objective (15)		
	S	M	L
M16: Overall spatial policy for hydrocarbon development	0/-	0/-	0/-
M17: Exploration and appraisal for hydrocarbon resources	++	++	++
M18: Production and processing of hydrocarbon resources	+	+	+
M19: Carbon and gas storage	0/-/?	0/-/?	0/-/?
M20: Deep coal and disposal of colliery spoil	-/?	-/?	-/?
M21: Shallow coal	-/?	-/?	-/?

Table 5: Hydrocarbon Preferred Policies and SA Scores

M16 - Although the policy does not directly address health it does present links to policy M17 which specifies that *“Hydrocarbon development will be permitted in locations where it would not give rise to unacceptable impact on local communities or public health. Adequate separation distances should be maintained between hydrocarbons development and residential buildings and other sensitive receptors in order to ensure a high level of protection from adverse impacts from noise, light pollution, emissions to air or ground and surface water and induced seismicity, including in line with the requirements of Policy D02”*. In addition it requires that a health impact assessment be undertaken where proposals involve hydraulic fracturing.

We have noted insignificant to minor negative effects however, as traffic will inevitably be generated by developments which, even despite being subject to traffic assessment and other policy requirements, may bring increased noise and vibration impacts to roadside receptors some way removed from development sites (but within 'acceptable' thresholds). These impacts may be perceived differently by different individuals, though in the main will be insignificant. However such impacts are likely to be relatively short lived.

M17 - The policy is strongly focussed on reducing effects on health and wellbeing. For example, it seeks to reduce impacts from traffic and requires that *“Hydrocarbon development will be permitted in locations where it would not give rise to unacceptable impact on local communities or public health. Adequate separation distances should be maintained between hydrocarbons development and residential buildings and other sensitive receptors in order to ensure a high level of protection from adverse impacts from noise, light pollution, emissions to air or ground and surface water and induced seismicity, including in line with the*

requirements of Policy D02". In addition it requires that proposals for hydraulic fracturing should be accompanied by a Health Impact Assessment.

M18 - The policy states "*Proposals for hydrocarbon development will be permitted where it can be demonstrated that arrangements can be made for the management or disposal of any returned water and Naturally Occurring Radioactive Materials arising from the development. Proposals should, where practicable and where a high standard of environmental protection can be demonstrated, provide for on-site management of these wastes*". This, coupled with the regulatory regime, is likely to prevent any health risks occurring. In addition, the policy requires sites to be decommissioned '*so as to prevent the risk of any contamination of ground and surface waters and emissions to air*'. This is broadly positive for health and wellbeing.

M19 – Carbon capture and Storage could have health and wellbeing effects. According to the Environment Agency "*any significant release of CO₂ along the chain has the potential to accumulate in dips or slumps on the surface in calm weather conditions. This poses a risk for humans in the affected area, potentially causing fatalities, due to asphyxiation*". Similar impacts would be expected from gas storage.

However, this policy places public health and safety as a paramount consideration so effects would be considered very low to negligible.

Equally there could be no impacts as proposals for carbon storage within the Plan area are currently seen as unlikely (additional uncertainty is noted because of this).

M20 - New colliery and spoil sites will generate traffic, noise, visual impacts (controlled by development management policies to acceptable levels, though minor residual effects may still occur) and possible safety risks from fugitive firedamp / methane / shaft collapse etc. (which are expected to be largely controlled by HSE regulation). In the longer term subsidence may present a risk affecting wellbeing, though the policy will monitor and attempt to control this. In the longer term restoration schemes may bring benefits. Minor negative.

There is a high degree of uncertainty over the extent to which new colliery or spoil sites will be required.

M21 - There is significant potential for open cast coal mining to affect health and safety, both directly (open cast sites themselves are dangerous) and in terms of the heavy traffic, particulate matter and other traffic pollutants it can generate. Effects can be largely mitigated by the development management policies – but residual effects (e.g. from traffic or local dust) may still remain.

Coal mining faces an uncertain future in the UK so further uncertainty is noted.

Potash, Polyhalite and Salt, Gypsum, Vein Minerals and Borrow Pits Preferred Policies

Preferred policy	Assessment Score for health SA Objective (15)		
	S	M	L
M22 Potash, polyhalite and salt supply	-/?	-/?	-/?

M23: Supply of gypsum	0/?	0/?	0/?
M24: Supply of vein minerals	0/-	0/-	0/-
M25: Borrow pits	+/-/0	+/-/0	+/-/0

Table 6: Potash, Polyhalite and Salt, Gypsum, Vein Minerals and Borrow Pits Preferred Policies and Scores

M22 - The effects on this objective are rated uncertain to minor negative for the National Park as if proposals for mining go ahead following consideration against the major development test there could be negative effects on the health and wellbeing of local communities depending on their location, although these would have to be significantly moderated due to the requirements of the NPPF.

In the wider resource area, which is more populated, there may be more negative effects as potash facilities would, as a possible indirect consequence of the major development requirements, be more likely to be located outside the National Park (subject to the resource being suitable). These effects could arise from factors such as increased traffic, noise, reduced air quality or significant visual intrusion changing the character of an area. Although potentially major negative, the requirement for consistency with the development management policies and policy IO1 ensures that unacceptable impacts will be avoided (though minor residual effects on wellbeing could remain).

M23 - The effects from the extraction of gypsum on health and wellbeing would be location specific and commensurate to the scale of the building works/processing above ground as predominantly this mineral is mined underground. However, such works would need to be consistent with development control policies including the ‘Transport of Minerals and Waste and Associated Traffic Impacts’ and ‘Local Amenity and Cumulative Effects’ policies as well as the protection for communities in the policy.

While uncertainty is noted as effects are very much dependent on location this policy is likely to result in effects that could be seen as broadly relatively insignificant in terms of the baseline (particularly as there has been no indication of any commercial interest in reactivating workings or the opening of new gypsum mines in the Plan area, and the only extant permission is already developed, but flooded). No effects on health and wellbeing are predicted from the supply of DSG.

M24 - This Policy does not promote vein mineral extraction, but plans in any case for the potential for sites to be submitted in future, so effects are likely to be rated as either no effect, insignificant effect or minor residual effect after mitigation is applied due to the possible amenity impacts of dust, noise and traffic.

M25 - Whilst there may be positive effects on communities nearby due to removing the need to transport minerals, there may also be minor and temporary negative effects for any immediately adjacent communities through noise and dust from the extraction process, although any proposals would need to be in accordance with the development management policies in the Plan.

Health effects of Waste Policies

The Waste Hierarchy and the Strategic Role of the Plan Area Preferred Policies

Preferred policy	Assessment Score for health SA Objective (15)		
	S	M	L
W01: Moving waste up the waste hierarchy	+/-/?	+/-/?	+/-/?
W02: Strategic role of the Plan area in the management of waste	--	--	--

Table 7: The Waste Hierarchy and the Strategic Role of the Plan Area Preferred Policies and Scores

W01 - The principle of managing waste high up the waste hierarchy would not directly affect this objective. However, some benefits would be observed as the policy would limit landfill and incineration (which may have a number of amenity impacts).

There may be negative impacts on health and well-being as a result of waste processing in relation to the proximity of processing facilities and the type of processing taking place. These effects are location specific. Particular effects to consider would be odour, noise and associated traffic movements. All are controlled by development management policies so effects are likely to be minor at worst.

W02 - The net effect of this policy is largely the same as the net effects of allocated waste sites on health, plus any further unallocated sites that might come forward during the plan period. Thus effects are mostly predicted to be minor negative (as much waste activity takes place on previously developed land away from residential receptors and is controlled by development management measures). In addition policy W11 states that 'In all cases [waste] sites will need to be suitable when considered in relation to physical, environmental, amenity and infrastructure constraints including existing and proposed neighbouring land uses'.

However, there is a potential cumulative effect from traffic that may occur from some sites in the south of the Plan area, but this does not change the overall assessment. This is reduced by part 3b of the policy which states: "For larger scale or specialised facilities expected to play a wider strategic role (e.g. serving multi-district scale catchments or which would meet specialised needs of particular industries or businesses), these will be located where overall transportation impacts would be minimised taking into account the market area expected to be served by the facility".

In terms of providing capacity within the Plan area to deal with waste arising in the Yorkshire Dales National Park, this would represent little change from the present situation as most waste is already collected by District Councils in the National Park and disposed of outside the National Park boundary. This policy would, however, secure a long term continuation of the status quo which may have small scale negative effects on communities in the Plan area as it may require larger (or busier) facilities generating more impacts such as noise or odour, thus having potential effects on the health, safety and well-being of local communities.

Waste Management Capacity – Local Authority Collected Waste, Commercial and Industrial and Construction, Demolition and Excavation Waste

Preferred policy	Assessment Score for health SA Objective (15)		
	S	M	L
W03: Meeting waste management capacity requirements – Local Authority Collected Waste	-	-	-
W04: Meeting waste management capacity requirements – commercial and industrial waste (including hazardous C&I waste)	-/?	-/?	-/?
W05: Meeting waste management capacity requirements – Construction, Demolition and Excavation waste (including hazardous CD&E waste)	-/?	-/?	-/?

Table 8: Local Authority Collected Waste, Commercial and Industrial and Construction, Demolition and Excavation Waste Preferred Policies and Scores

W03 - Supporting additional proposals for recycling, reprocessing and composting may also generate new health and wellbeing effects (though these effects will be reduced by W10's minimisation of transport impacts and W11's emphasis on considering amenity constraints as well as the development management policies). Similarly, supporting improvements to the Household Waste Recycling network may result in new development which could generate amenity effects such as noise and odour. These effects will be reduced by the development management policies (particularly Local Amenity and Cumulative Impacts).

W04 - Effects are reported for individual sites referred to in the policy (see site assessments for WJP13, WJP18, WJP17, WJP08, WJP15, WJP16, WJP22, WJP19, WJP11 below).

Any negative perceptions associated with living in proximity to hazardous waste sites would be avoided through this policy (but only in this Plan area). However, there may still be negative effects on wellbeing from living close to a range of waste management facilities associated with recycling and reprocessing (such as noise, dust, odour etc.) To a large degree these will be mitigated to a low level by the development management policies, though some smaller scale residual effects may remain depending on location.

As the strategic scale sites of Allerton Waste Recovery Park, Southmoor, Arbre and North Selby already have planning permission impacts are considered to have been dealt with through their respective applications.

An additional negative effect may arise through the export of hazardous waste. Here problems may arise as sites outside the Plan area experience continued demand for their services. Effects on community health and wellbeing (such as increased noise / traffic) may be generated as a result. However, in most cases such sites will be remote to all but a few properties so effects are not considered significant.

W05 - Effects are reported for individual sites referred to in the policy (see site assessments for WJP24, WJP08, MJP27, MJP26, WJP10, WJP05, WJP21, WJP05, WJP06 below).

While there may be negative impacts on communities close to CD&E facilities in terms of noise, dust, traffic etc., mostly significant effects will be avoided due to this policy working in combination with policy W11 'Waste Site Identification Principles', which favours previously developed, industrial and employment land as well as quarry voids (which will in many cases

mean that CD&E development takes place away from residential areas). In addition, development management policies such as D02: 'Local Amenity and Cumulative Effects' should significantly reduce any effects.

An additional negative effect may arise through the export of hazardous CD&E waste. Here problems may arise as sites outside the Plan area experience continued demand for their services. Effects on community health and wellbeing (such as increased noise / traffic) may be generated as a result. However, in most cases such sites will be remote to all but a few properties.

Quarry restoration through utilising CDE waste could generate some positive effects in the longer term.

We have rated the effect to be at most minor negative, with a possible indirect positive effect in the longer term. Some uncertainty is noted as it not known in detail which locations outside of the Plan area hazardous waste would go to.

Agricultural Waste, Low-level (Non-Nuclear) Radioactive Waste, Waste Water and Sewage Sludge and Power Station Ash

Preferred policy	Assessment Score for health SA Objective (15)		
	S	M	L
W06: Managing agricultural waste	0	0	0
W07: Low-level (Non-nuclear) radioactive waste	0	0	0
W08: Managing waste water and sewage sludge	m+ / -	m+ / -	m+ / -
W09: Managing power station ash	0/- /+/?	0/- /+/?	0/- /+/?

Table 9: Agricultural Waste, Low-level (Non-Nuclear) Radioactive Waste, Waste Water and Sewage Sludge and Power Station Ash Preferred Policies and Scores

W06 - Supporting on-farm management of waste / AD or off farm management may create some localised issues associated with bio-aerosols and odours which may cause a nuisance. This may impact upon the wellbeing of local people living close to on-farm waste facilities or off-farm specialised waste facilities. These issues can be readily avoided / mitigated for by policies elsewhere in the plan (e.g. D02 Local Amenity and Cumulative Impacts and W11 Waste Site Identification Principles).

W07 - Any impacts to humans would be strictly regulated by external bodies. This would minimise risks arising from the treatment of LLRW.

W08 - The development of such facilities will contribute towards the overall health and wellbeing of communities however there may be negative effects related to construction (traffic, dust etc.), or the dispersal of bio-aerosols or odours depending on proximity to communities.

W09 - Increased activity at these sites may create some local problems of dust and increased lorry movements. Mitigation measures (such as wheel washing) and perhaps traffic management measures should be applicable which should help reduce impacts to

acceptable levels. These are likely to happen because of NPPF policy, even without mitigation measures in the plan. The use of power station ash as a secondary aggregate may reduce the need for extraction of primary resources. This may result in a positive impact in relation to this objective (dependent on the location of the potential primary aggregate extraction sites that would no longer be required).

The policy does allow for management of power station ash at new facilities which could generate some further jobs (positive for wellbeing), or could have other negative effects on human receptors which are dependent on location (so uncertainty is noted) though effects would be low as effects will be constrained by policy W11 and development management measures.

Overall Waste Locational and Site Identification Principles

Preferred policy	Assessment Score for health SA Objective (15)		
	S	M	L
W10: Overall locational principles for provision of new waste capacity	-/+	-/+	-/+
W11: Waste site identification principles	m+	m+	m+

Table 10: Overall Waste Locational and Site Identification Principles and Scores

W10 - While emphasising existing sites will help to prevent new communities from experiencing health and wellbeing impacts, where new sites are needed it cannot be known what the extent of impacts will be. It may also be the case that maximising or extending sites extends or even increases existing amenity impacts on local people. The policy also supports providing waste management facilities close to sources of arisings which may in some cases have negative effects on communities in terms of effects on amenity and effects from traffic. However, W11 emphasises that *'in all cases sites will need to suitable when considered against.... amenity constraints....including existing and proposed neighbouring land uses'*. The plan also includes policy DO2 for 'Local Amenity and Cumulative Impacts' which would ensure community amenity impacts would be kept within acceptable levels.

There may be some minor negative effects on health and wellbeing in National Parks and AONBs as waste related traffic here may need to travel further to waste management facilities. However, this may also mean less waste management foci for traffic within the National Parks (which may have some positive local effects on wellbeing).

In summary the policy is considered to have up to minor positive and negative effects.

W11 - The preference for locations where heat can be utilised from recovery of energy from waste would have positive effects on the wellbeing of communities through provision of a local sustainable energy source. In terms of mitigating any effects on communities, this policy would require consideration of amenity issues to be undertaken in line with national waste planning policy. Appendix B of the National Planning Policy for Waste requires that noise, light pollution, vibration, vermin, odour, air quality and traffic are all taken in to consideration. Amenity issues are also given much weight in the NPPF and therefore impacts in relation to this objective are considered to be positive.

The policy also protects communities from bio-aerosols.

Minerals and Waste Transport Infrastructure

Preferred policy	Assessment Score for health SA Objective (15)		
	S	M	L
I01: Minerals and waste transport infrastructure	0/?	0/?	0/?
I02: Locations for ancillary minerals infrastructure	+/-	+/-	+/-

Table 11: Minerals and Waste Transport and other Infrastructure and Scores

I01 - The retention of existing infrastructure is not likely to cause further impacts unless the frequency of use increases, which is a possibility, though new infrastructure could have local effects. Direct impacts could relate to noise, odour and dust through waste and mineral transportation, however, impacts are likely to be controlled by the development management policies to a degree (e.g. 'Local Amenity and Cumulative Impacts').

By helping to reduce road transportation, however, positive effects could result in relation to this objective by removing HGVs from roads thereby impacting on safety, noise and vibration as well as reducing the potential for odour and dust from transportation. On balance the localised effects of supporting existing and new infrastructure are considered less significant than the benefits of reducing road transportation of minerals and waste.

I02 - The policy requires that development does not create significant additional adverse impact on local communities. This is broadly positive for the health and wellbeing of communities, though in some places low level impacts acting together (e.g. traffic, noise, visual impacts) might alter local perceptions of an area with effects on wellbeing. The link to development management policy D02 will help to mitigate impacts (e.g. from air and noise).

Minerals and Waste Safeguarding Policies

Preferred policy	Assessment Score for health SA Objective (15)		
	S	M	L
S01: Safeguarding mineral resources	++/?	++/?	++/?
S02: Developments proposed within Minerals Safeguarding Areas	+/?	+/?	+/?
S03: Waste management facility safeguarding	?/m +	?/m +	?/m+
S04: Transport infrastructure safeguarding	0/?	0/?	0/?
S05: Minerals ancillary infrastructure safeguarding	+/?	+/?	+/?
S06: Consideration of applications in Consultation Areas	0	0	0

Table 12: Minerals and Waste Safeguarding Policies and Scores

S01 - Under this policy, users of new developments would be well protected from potential future minerals extraction through the inclusion of buffer zones of varying distance.

Some uncertainty is noted in relation to the amount and location of any future development that may be displaced as a result of this policy, and the consequences of this displacement, is not known.

S02 - There could be benefits for community health where there are circumstances in which the safeguarding policy precludes development from going ahead. Though to some extent some of this development would simply go somewhere else.

S03 - Safeguarding strategic sites may have a positive or negative effect on the health, safety and wellbeing of communities as it may displace some alternative development that may be better or worse for wellbeing.

This policy also requires that should new development be required within the 100m buffer zone of a waste facility, adequate mitigation can, if necessary, be provided within the encroaching development proposals in order to reduce any impacts from existing or proposed adjacent waste uses to an acceptable level. This should serve to protect the amenity of residents/users of new development in close proximity to safeguarded waste facilities.

S04 - The retention of existing rail heads/links and wharves is unlikely to change the current baseline, though the policy will have a positive effect in the longer term through preventing encroaching development. Some uncertainty is noted as the nature and location of any future development that may be displaced as a result of this policy, and the consequences of this displacement, is not known.

S05 - Although this policy might prevent some non-minerals development from going ahead it would also ensure that opportunities for minerals processing in the future would be available. This could bring local problems that could affect community wellbeing (like additional noise / traffic). However, the buffer will help protect receptors from impacts from development encroachment. Positive with some uncertainty.

S06 – No clear link to health.

Development Management Policies

Preferred policy	Assessment Score for health SA Objective (15)		
	S	M	L
D01: Presumption in favour of sustainable minerals and waste development	+	+	+/?
D02: Local amenity and cumulative impacts	++	++	++
D03: Transport of minerals and waste and associated traffic impacts	+/?	+/?	+/?
D04: North York Moors National Park and the AONBs	+/-	+/-	+/-
D05: Minerals and waste development in the Green Belt	+	+	m+
D06: Landscape	+/-	+/-	+/-
D07: Biodiversity and geodiversity	+	+	+
D08: Historic Environment	0	0	0
D09: Water Environment	++	++	++
D10: Reclamation and afteruse	m+	m+	m+
D11: Sustainable design, construction and operation of development	+/-/?	+/-/?	+/-/?
D12: Protection of agricultural land and soils	+	+	+/-
D13: Consideration of applications in Development High Risk Areas	+	+	+

Table 13: Development Management Policies and Scores

D01 - This preferred policy approach takes into account Neighbourhood Plans alongside the Plan and NPPF which is likely to enable decisions to be taken that are less likely to compromise community wellbeing. Some uncertainty is noted in the longer term as Neighbourhood Plans and this Local Plan may become out of date.

D02 - The policy would directly consider the impacts of noise, dust, vibration, subsidence, odour and other emissions to air, vermin and litter, visual impact, public safety and access to open space. All of these aspects would have positive impacts on protecting health and wellbeing over the lifetime of the plan. The significance of the effects depends on the interpretation of 'unacceptable', though the community will have the chance to influence this.

D03 - The consideration of the local road network / traffic routing as well as suitable arrangements for on-site vehicle manoeuvring, parking and loading/unloading should help to minimise effects on peoples' health and well-being as it will consider safety in relation to road access. Consideration of sustainable travel would also reduce the vehicles on roads to a limited degree. However, road transportation of mineral and waste overall may still have negative effects on noise, vibration and odour on communities along preferable routes and this policy does little to promote the overall reduction in road transport by location close to market. However, other policies in the plan may moderate this to a degree (e.g. the policy approach to the overall distribution of sand and gravel / amenity and cumulative impacts). Clear linkage between this policy and the amenity and cumulative impacts policy (D02) in particular should be included in the 'key links to other relevant policies and objectives' box to help moderate effects.

D04 - Jobs in the minerals and waste sector may be more restricted in designated landscapes as a result of this policy (and jobs are important for wellbeing) though tourism is likely to benefit. Any health effects associated with minerals and waste sites will be less likely to happen in designated landscapes, and possibly more likely to happen elsewhere. Positive and negative.

D05 - As Green Belt is accessible to a greater number of people than most other parts of the Plan area, protecting its openness and restricting waste development is likely to benefit recreation, with indirect positive effects on the betterment of health due to continued access to less disturbed Green Belt land⁹.

D06 - This policy is likely to maintain a high quality environment, particularly in those areas of high landscape value, with some benefits to overall wellbeing¹⁰. Some negative amenity impacts may be experienced in areas of lower landscape value outside of the designated

⁹ According to CPRE "Green Belt land by its very nature is the 'countryside next door'. It offers major opportunities for ensuring that everyone has easy, car free access to the countryside, allowing people from the innermost parts of a city to be able to walk or cycle to a high quality, open countryside.....access to the countryside for quiet outdoor recreation is important for the nation's health and wellbeing – especially at a time of rising health concerns over obesity and how little exercise people take". CPRE, 2005. Green Belts 50 years on. CPRE, London.

¹⁰ See for example: Verlade et al, 2007. Health effects of viewing landscapes – landscape types in environmental psychology. Urban Forestry and Greening (6) 2007, pp199 – 212

areas should development cluster in these locations (though this will most likely be mitigated to low levels by other development management policies).

D07 - If the biodiversity offsetting provision is improving/increasing a biodiversity asset that also had value to the local community, this option would have positive effects as it would be replacing the asset with a new (larger/improved) one within the same area. However, there is uncertainty as to whether an offset would continue to be accessible. Elsewhere, the policy's strong protection for biodiversity / geodiversity is likely to offer protection to valued wildlife areas and may even create new wildlife / geology areas. These may deliver ecosystem services such as access to recreation or pollution regulation services of benefit to communities.

D08 – No clear link to health

D09 - A clean and steady water supply is an essential prerequisite of several aspects of health and wellbeing. And reduced flood risk is of key importance to safety in many communities. This approach would strongly support this.

D10 - This policy will enable considerations related to the wellbeing of the community to be taken into account by requiring schemes to be developed through discussion with local communities. The provision of recreation opportunities will also provide health and wellbeing benefits for local communities. The extent of these will increase over time.

D11 - Part one of this policy promotes high quality design and landscaping which may have a positive impact or at least minimise/neutralise negative impacts in relation to landscape/townscape. Part two of the policy encourages 'incorporation of appropriate space to enable waste arising during the use of the development to be separated and stored prior to being collected for recycling or re-used'. Landscape/townscape impacts in relation to this element of the policy will depend upon the location and scale of additional development/space required, though are likely to be mitigated by the landscape policy (D06). It would be beneficial to refer to policy D06 in the 'key links to other relevant policies and objectives' box.

D12 - Best and Most Versatile Land not only supports jobs in farming; it underpins the production of food – which is a major component of the British economy. It may also indirectly maintain character, which helps boost tourism. It may however prevent some quarrying and the jobs and value associated with that, though it may simply direct it to more suitable areas. Moderate positive, with some minor negative effects.

D13 - This policy is likely to have beneficial effects by ensuring that built development is less prone to land instability, which should reduce levels of stress, increase safety and ensure that properties maintain value.

Health Specific Findings for Sites Allocations

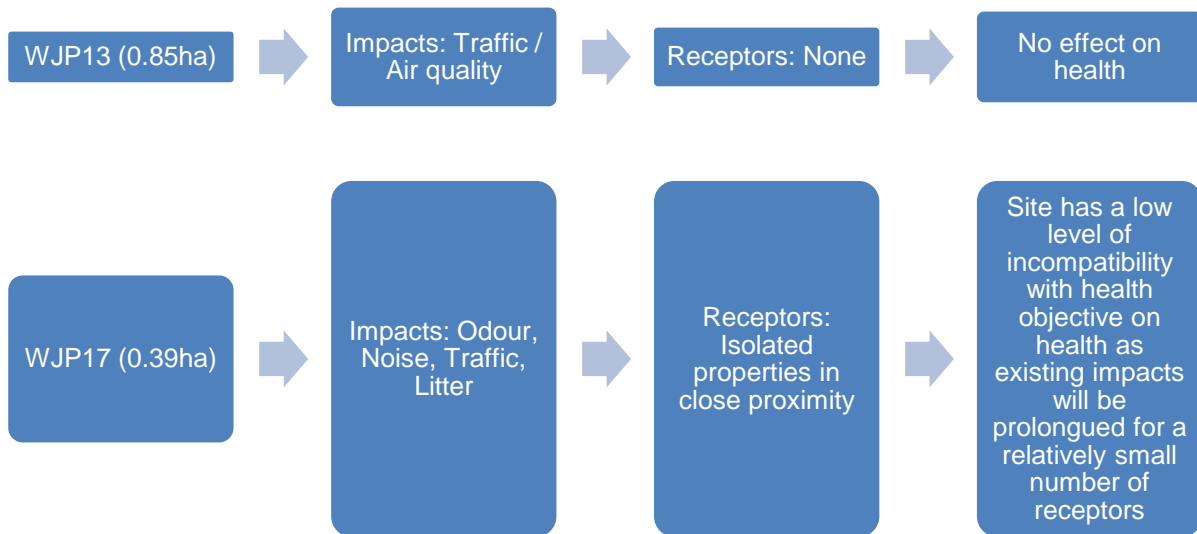
The Sustainability Appraisal also looked at sites and the full findings of site assessments (including for discounted sites) are available in appendix 3 of the [Sustainability Appraisal Report](#). The methodology by which site assessment was carried out is also available on the [Joint Plan site assessment website](#).

The findings for allocated sites are reported below. Assessments were done on the basis of information provided by submitters, and the site assessment process has proposed mitigation where appropriate to reduce the reported effects (see table 23 below). It is emphasised that the assessments are necessarily at a high strategic level at this stage of the development process.

Sites in Craven District and Health Effects

Site Reference and Name	Type of Site	Assessment Score for health SA Objective (15)		
		S	M	L
WJP13: Halton East, near Skipton	Retention of waste transfer station with higher vehicle numbers and hours of operation	0	0	0
WJP17: Skibeden, near Skipton	Retention of Household Waste Recycling Centre for waste transfer of household and some commercial waste	-	-	-

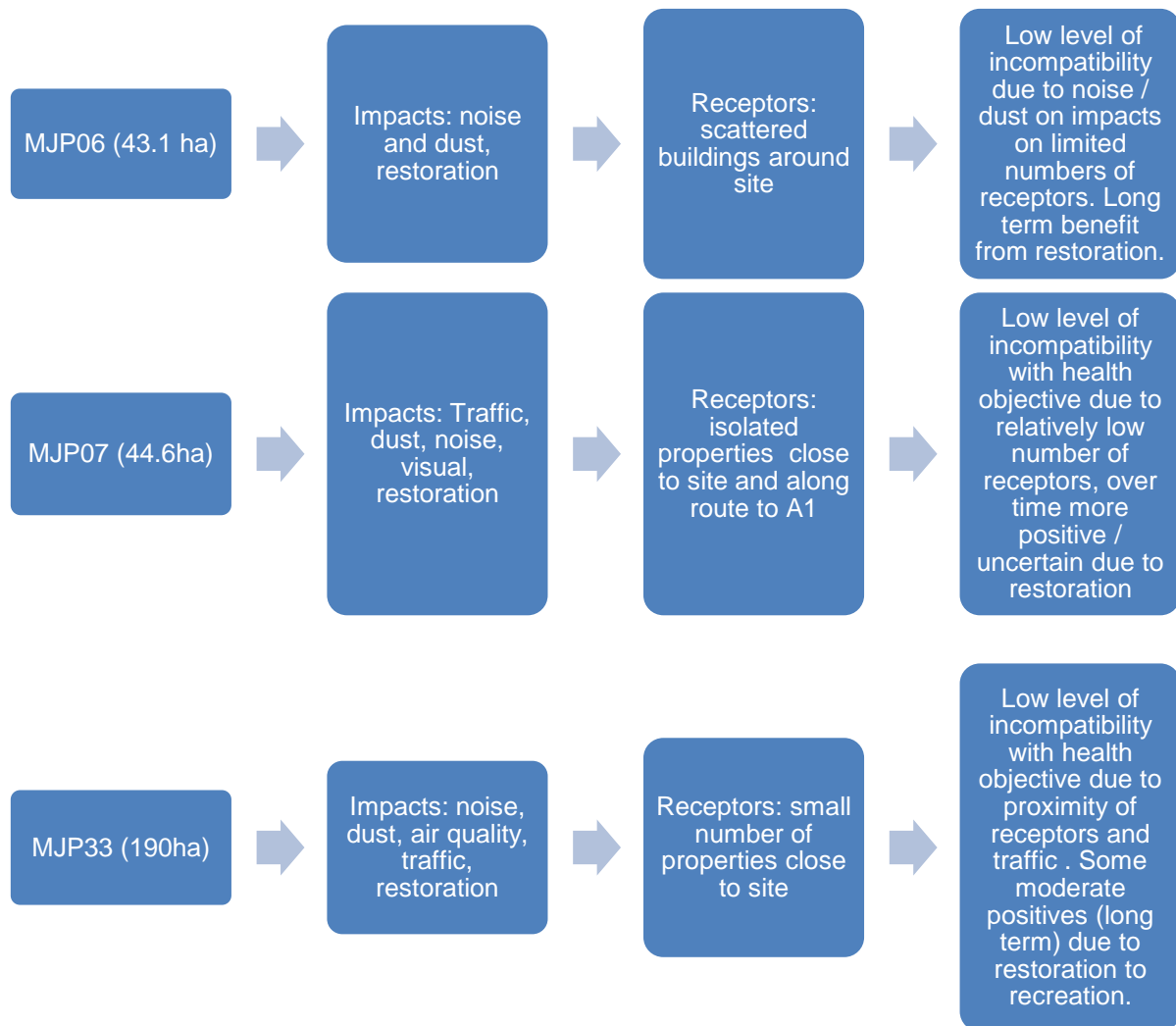
Table 14: Craven Sites and Scores



Sites in Hambleton District and Health Effects

Site Reference and Name	Type of Site	Assessment Score for health SA Objective (15)		
		S	M	L
MJP06: Langwith Hall Farm, east of Well	Extraction of sand and gravel	-	+ / ?	+ / ?
MJP07: Oaklands, near Well	Extraction of sand and gravel	-	+ / ?	+ / ?
MJP33: Home Farm, Kirkby Fleetham	Extraction of sand and gravel	-	-	m+ / ?

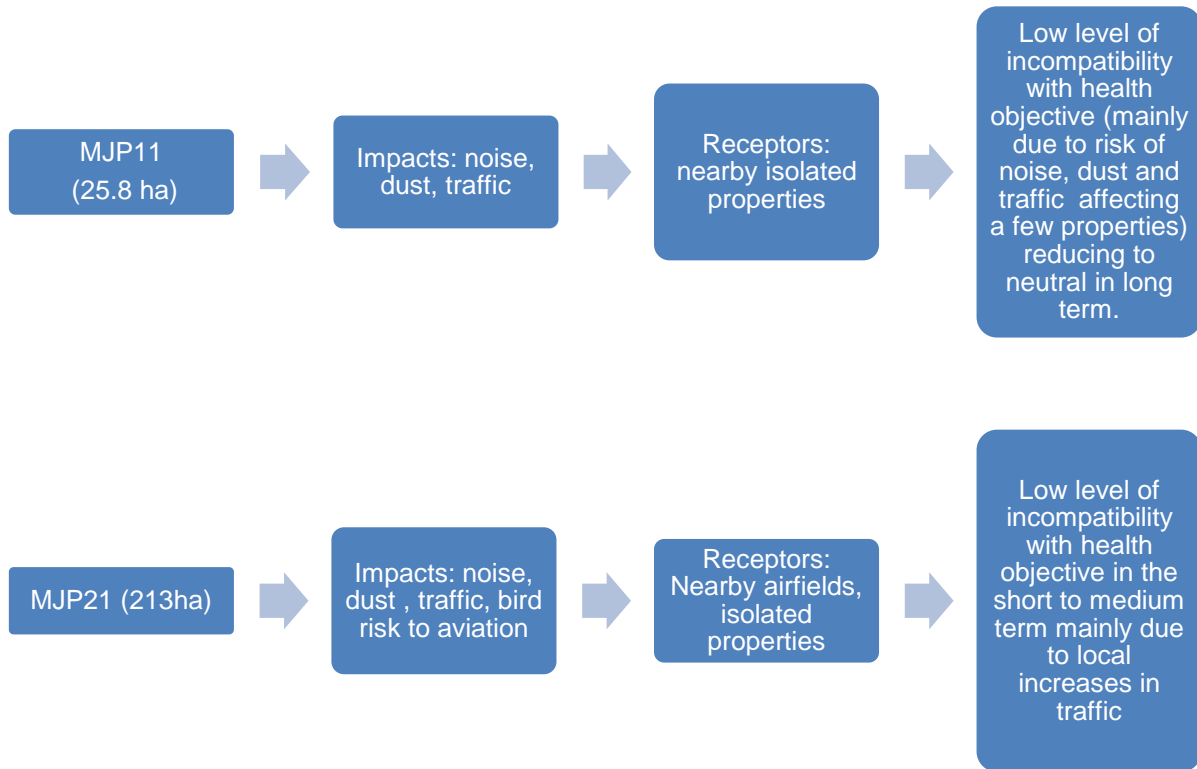
Table 15: Hambleton Sites and Scores

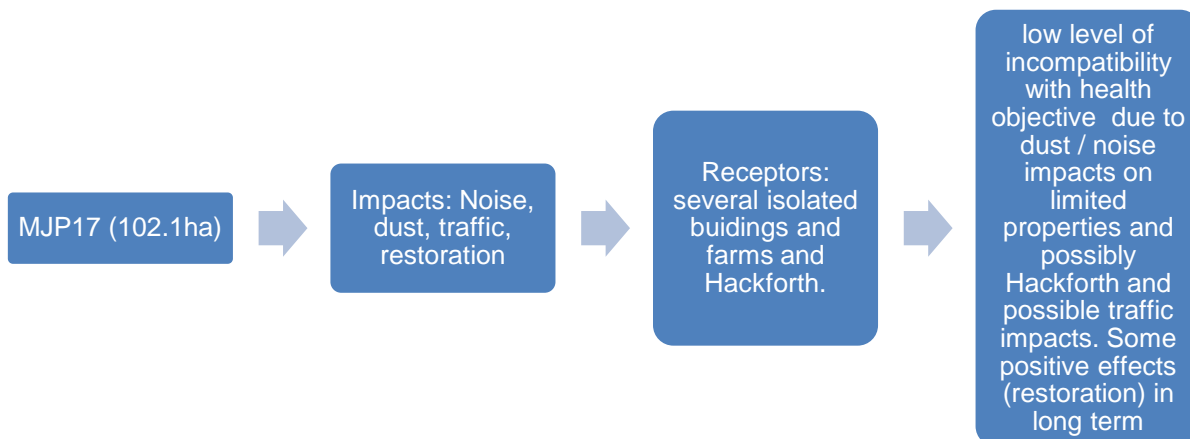


Sites Split between Hambleton and other Districts (Harrogate or Richmondshire)

Site Reference and Name	Type of Site	Assessment Score for health SA Objective (15)		
		S	M	L
MJP11 Gebdykes Quarry, near Masham	Extraction of Magnesian limestone	-	-	0
MJP21: Land at Killerby	Extraction of sand and gravel	-	-	0
MJP17: Land to South of Catterick	Extraction of sand and gravel	-	-	+ / ?

Table 16: Sites Split between Hambleton and other Districts (Harrogate or Richmondshire) and Scores

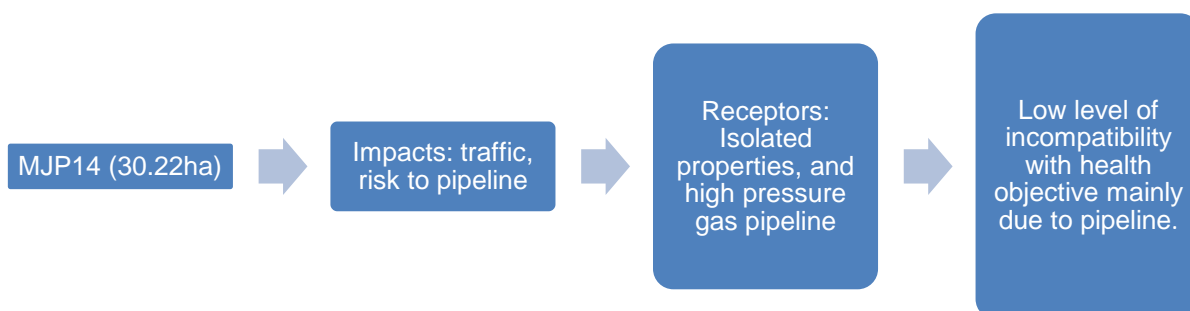


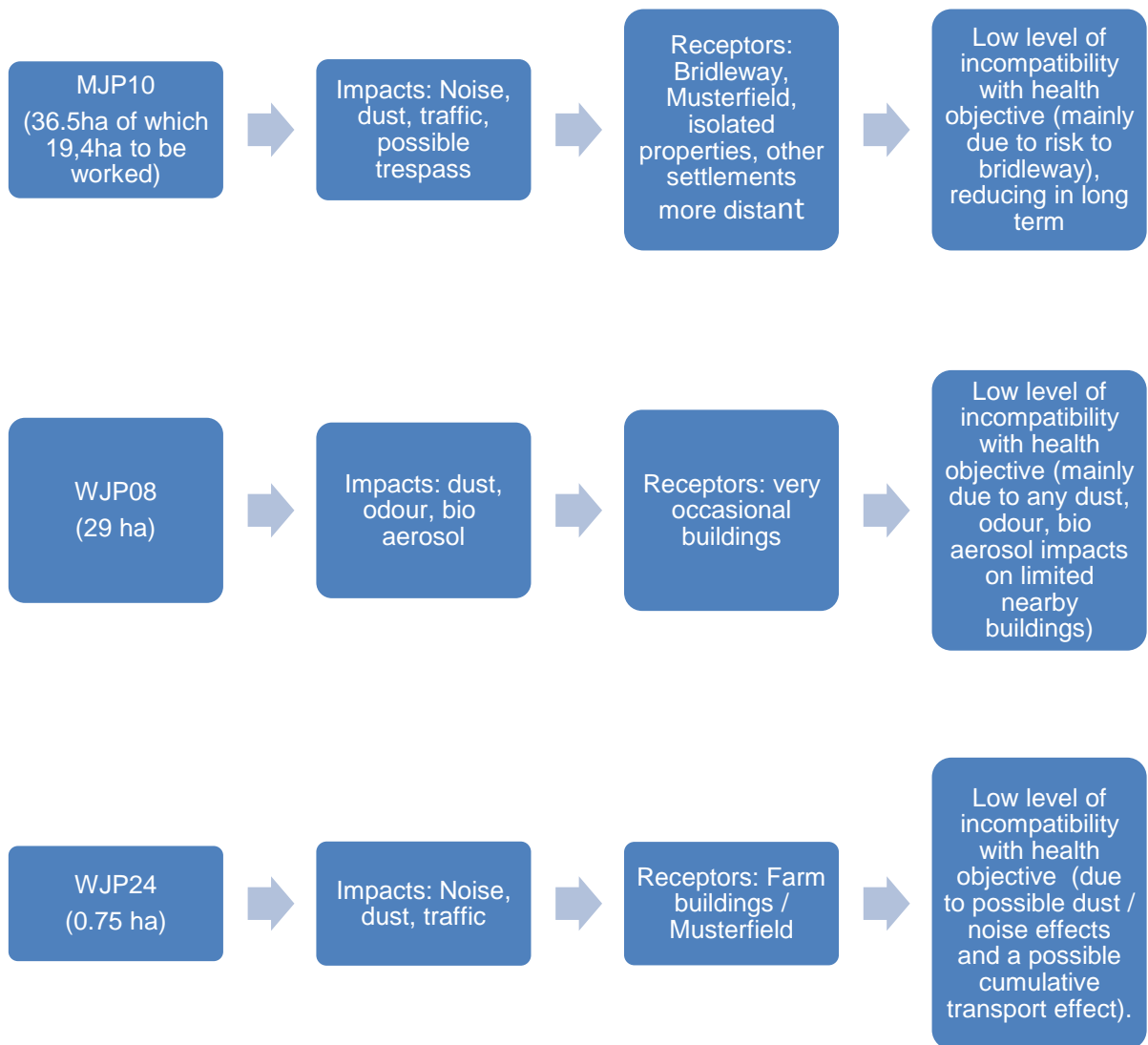


Sites in Harrogate Borough and Health Effects

Site Reference and Name	Type of Site	Assessment Score for health SA Objective (15)		
		S	M	L
MJP14 Ripon Quarry, North Stainley	Extraction of sand and gravel	-	-	0
MJP10 Potgate Quarry, North Stainley	Extraction of Magnesian limestone	- / --	- / --	- / 0
WJP08 Allerton Park, near Knaresborough	Retention of landfill and associated landfill gas utilisation plant and use of site for growth of energy / biomass crops beyond 2018. Proposed composting, transfer station and materials recycling facility, recycling (including of minerals for secondary aggregates)	-	-	-
WJP24 Potgate (former plant site), North Stainley	Recycling of inert construction and demolition waste for secondary aggregates	0 / -	0 / -	0 / -

Table 17: Sites in Harrogate Borough and Scores

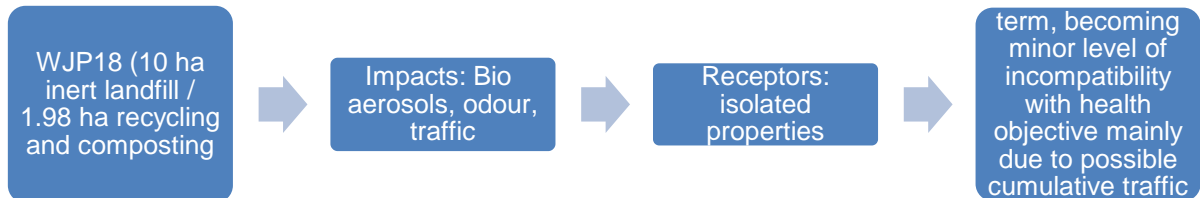




Sites in Richmondshire District and Health Effects

Site Reference and Name	Type of Site	Assessment Score for health SA Objective (15)		
		S	M	L
WJP18 Tancred, near Scorton	Landfill, recycling (including treatment, bulking and transfer), open windrow composting	0	-/?	-/?

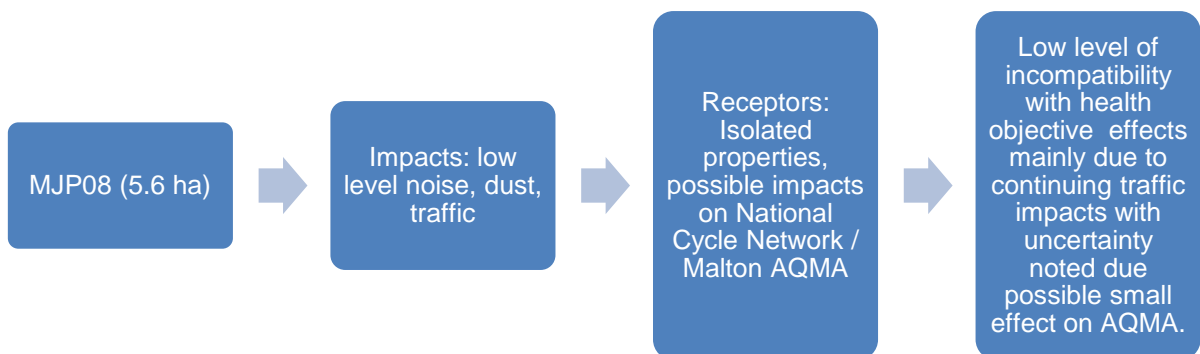
Table 18: Sites in Richmondshire District and Scores

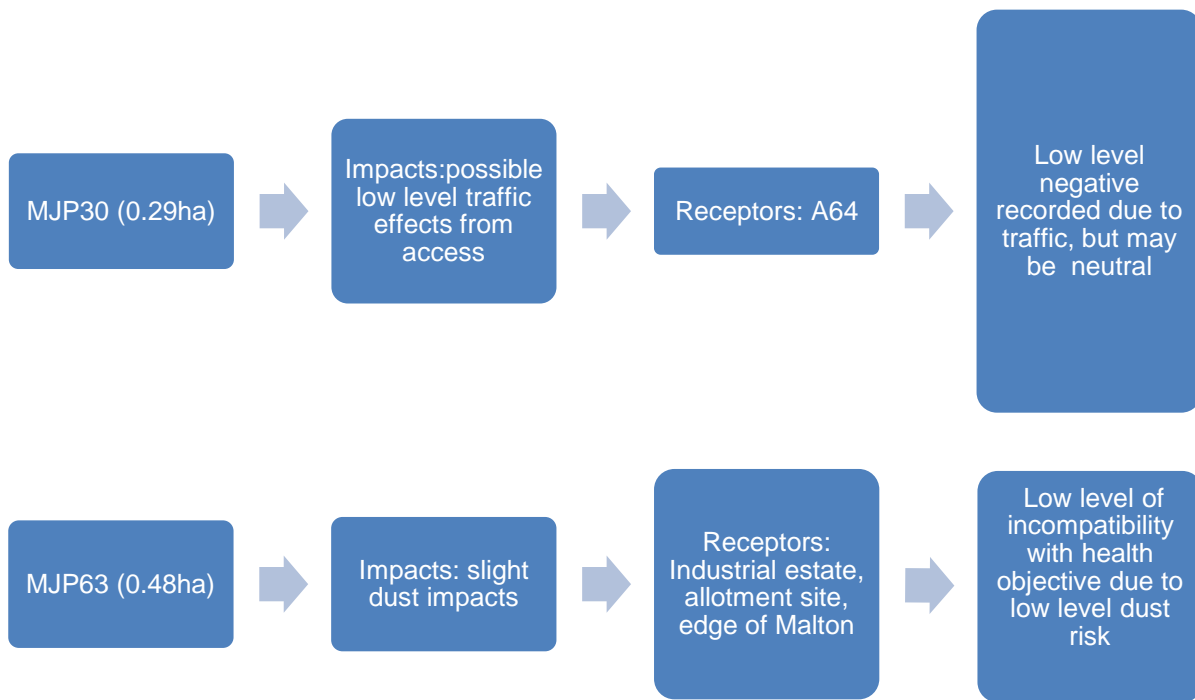


Sites in Ryedale District and Health Effects

Site Reference and Name	Type of Site	Assessment Score for health SA Objective (15)		
		S	M	L
MJP08 Settrington Quarry	Extraction of Jurassic limestone	-	-	0
MJP30 West Heslerton Quarry	Extraction of sand	-	-	0
MJP63 Brows Quarry, Malton	Extraction of building stone	-	-	0

Table 19: Sites in Ryedale District and Scores

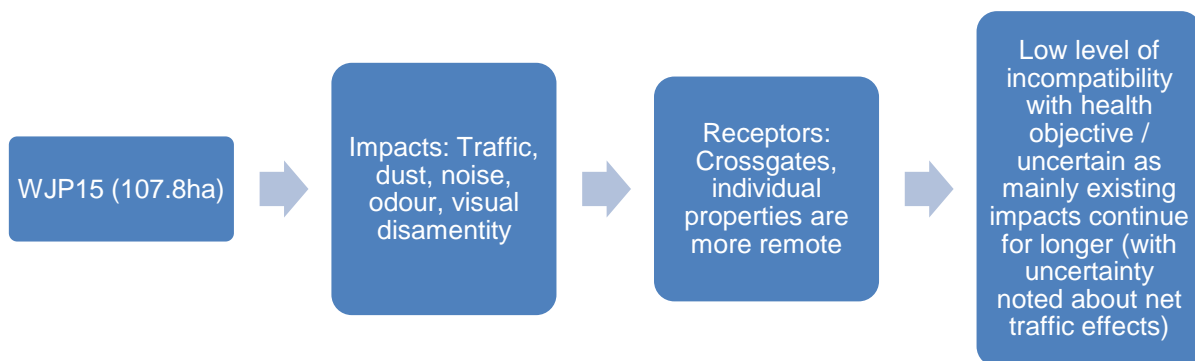




Sites in Scarborough District and Health Effects

Site Reference and Name	Preferred or discounted	Type of Site	Assessment Score for health SA Objective (15)		
			S	M	L
WJP15 Seamer Carr, Eastfield, Scarborough	Preferred	Retention of existing recycling (including treatment, bulking and transfer), open windrow composting, and energy from waste (biomass) facilities beyond end of current planning permissions which are limited to 2020 and new inert waste screening facility	? / -	? / -	? / -

Table 20: Sites in Scarborough District and Scores

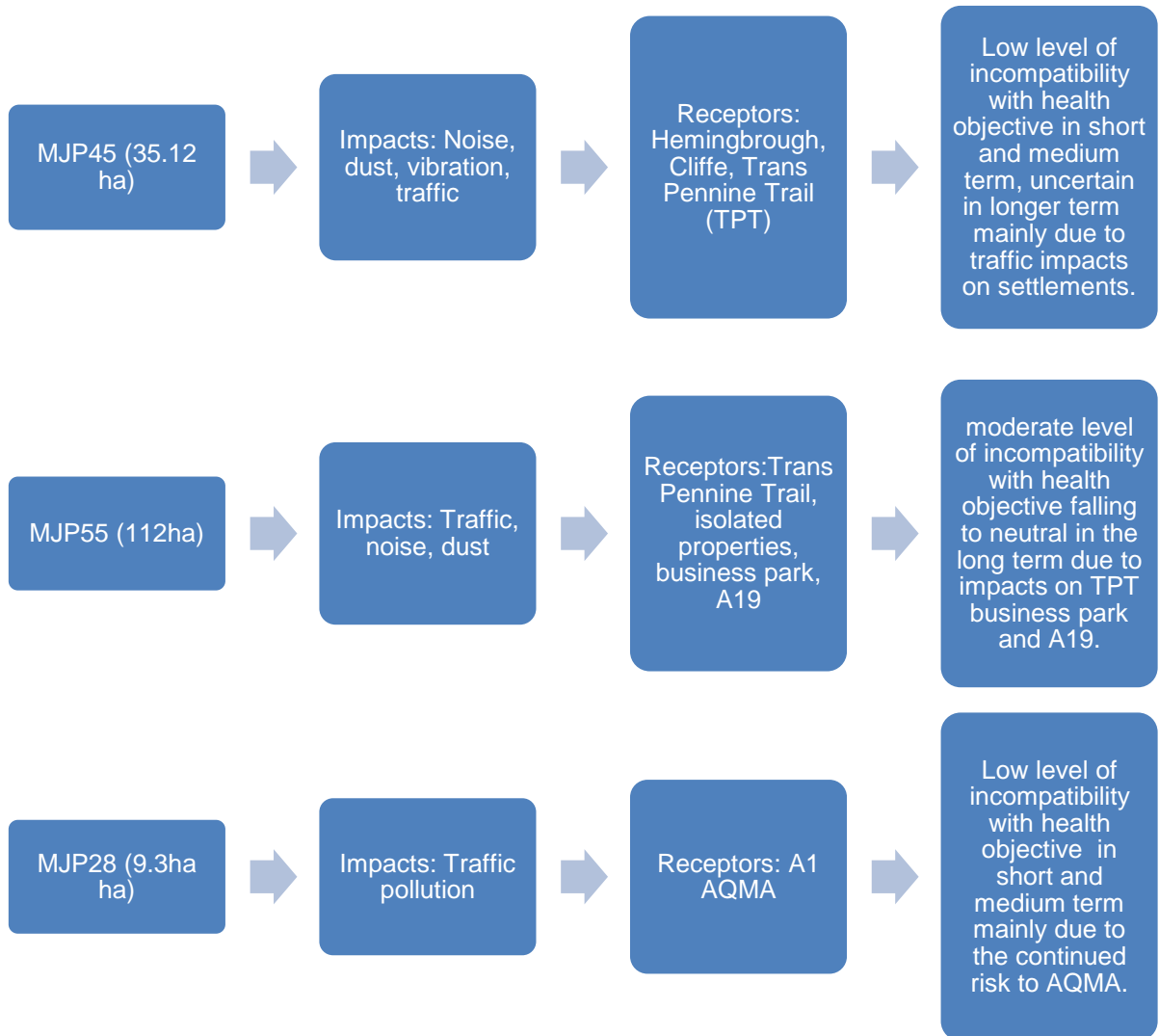


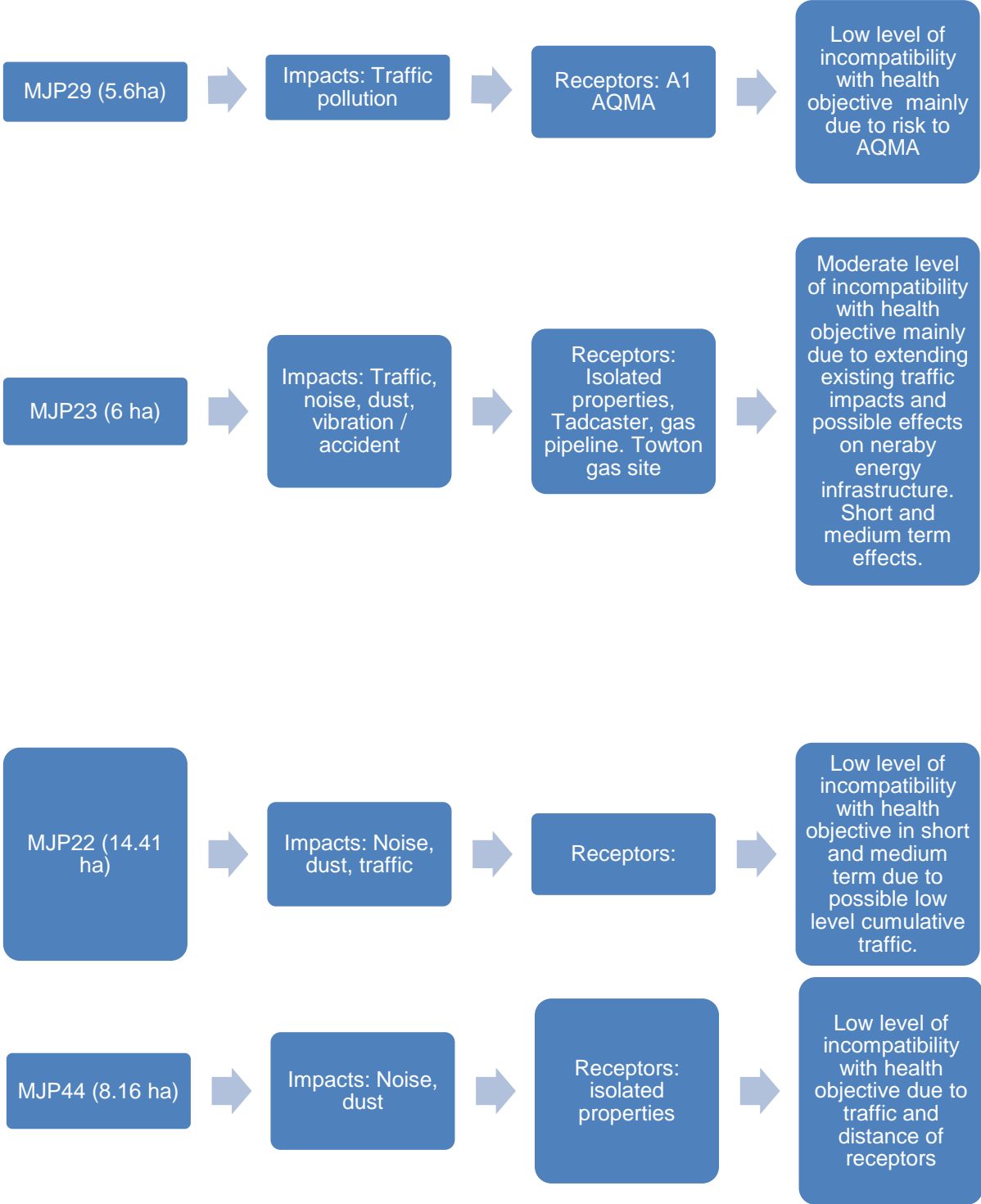
Sites in Selby District and Health Effects

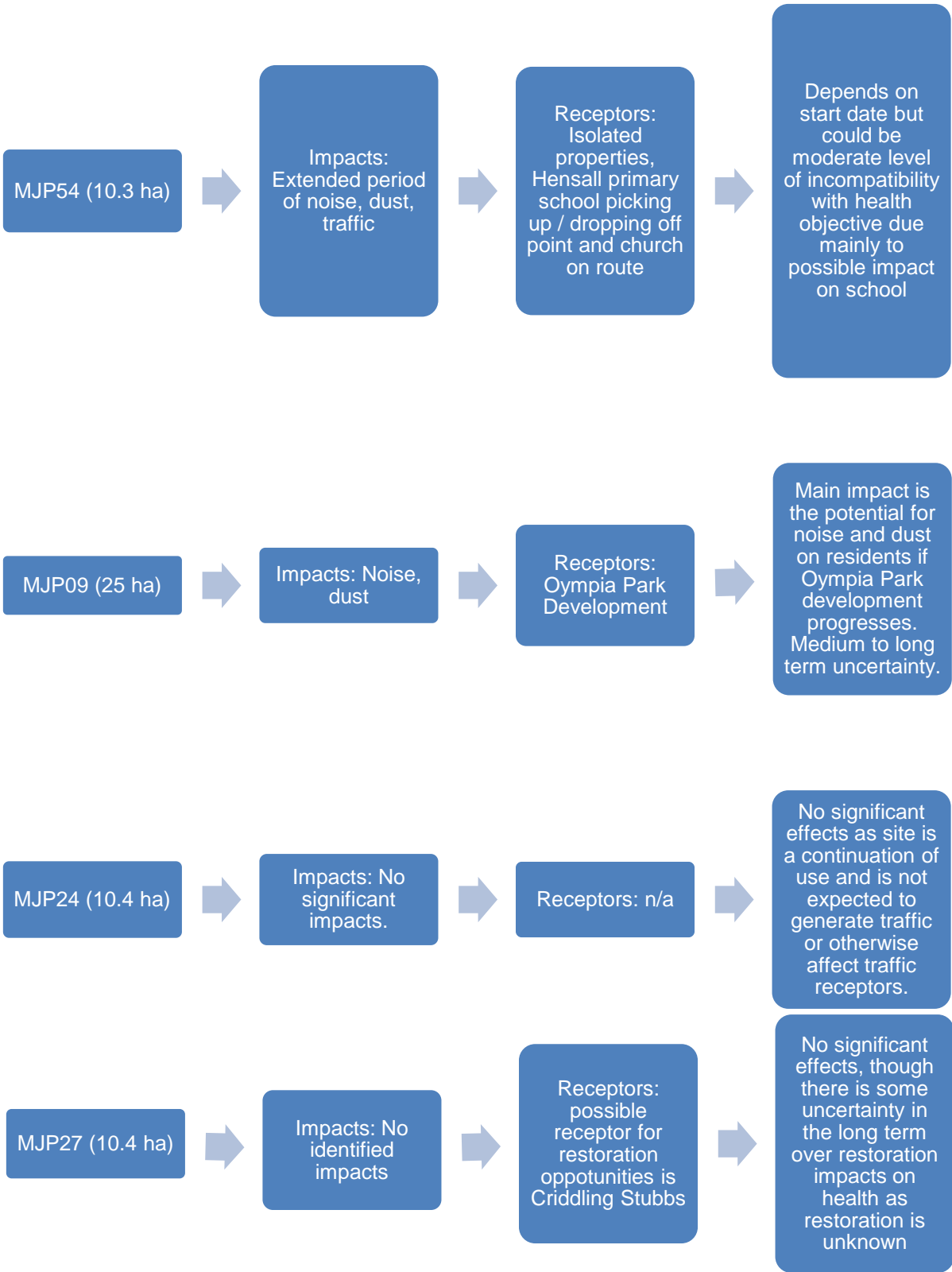
Site Reference and Name	Type of Site	Assessment Score for health SA Objective (15)		
		S	M	L
MJP45 Land to north of Hemingbrough	Extraction of clay	-	-	?
MJP55 Land adjacent to former Escrick Brickworks	Extraction of clay	m-	m-	0
MJP28 Barnsdale Bar Quarry, Kirk Smeaton	Extraction of Magnesian limestone	-	-	0
MJP29 Went Edge Quarry, Kirk Smeaton	Extraction of Magnesian limestone	-	-	-
MJP23 Jackdaw Crag, Stutton	Extraction of Magnesian limestone	m-	m-	0
MJP22 Hensall Quarry	Extraction of sand	-	-	0
MJP44 Land between Plasmor Block Making Plant, Great Heck and Pollington Airfield	Extraction of sand	-	-	0
MJP54 Mill Balk Quarry, Great Heck	Extraction of sand	m-	m-	0
MJP09 Barlby Road, Selby	Rail and road freight distribution facility including handling facility for aggregates	0	0 / ?	0 / ?
MJP24 Darrington Quarry processing plant site and haul road	Retention of plant site and haul road for processing of Magnesian limestone	0	0	0
MJP27 Darrington Quarry (recycling)	Recycling of inert waste	0	0	?
MJP26 Barnsdale Bar, near Kirk Smeaton	Recycling of inert waste	0	0	0
WJP10 Went Edge Quarry recycling, near Kirk Smeaton	Recycling of construction and demolition waste for secondary aggregate	-	-	0
WJP16 Common Lane, Burn	Bulking and transfer of municipal and commercial waste	-	-	0
WJP06 Land	Landfill of inert waste for	m-	m-	0

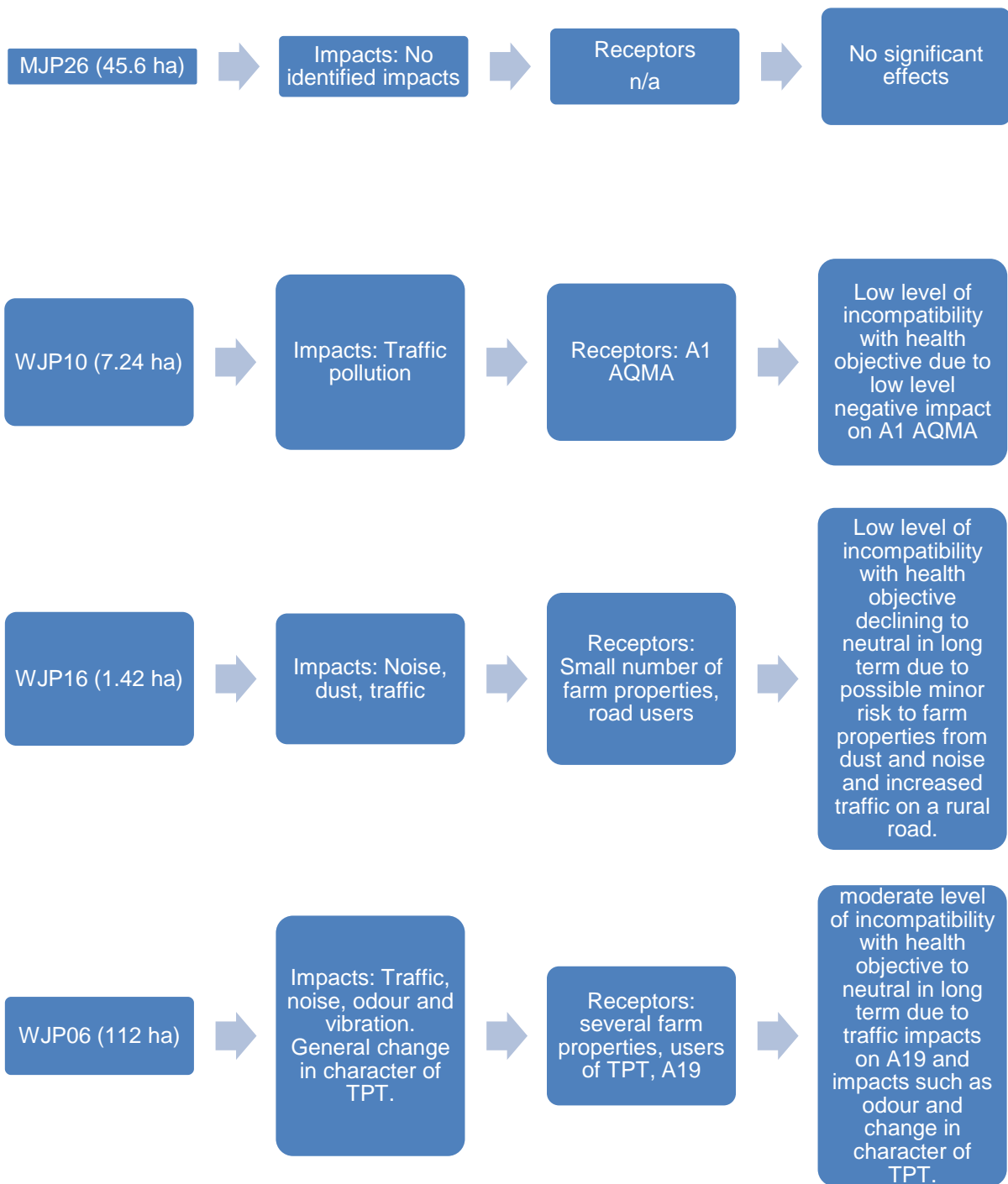
adjacent to former Escrick Brickworks, Escrick	restoration of extraction site			
WJP21 Brotherton Quarry, Burton Salmon	Import of inert waste for restoration purposes	-	-	0
WJP22 Land on former Pollington Airfield	-Import of wood for wood pellet production -Modification to biomass plant permission (reduction to throughput and output) -Additional infrastructure associated with wood processing	0	0	0
WJP03 Southmoor Energy Centre, former Kellingley Colliery	Energy from Waste facility	-/?	-/?	-/?
WJP25 Former ARBRE Power Station	Energy Recovery facility with Advanced Thermal Treatment (ATT)	-	-	?

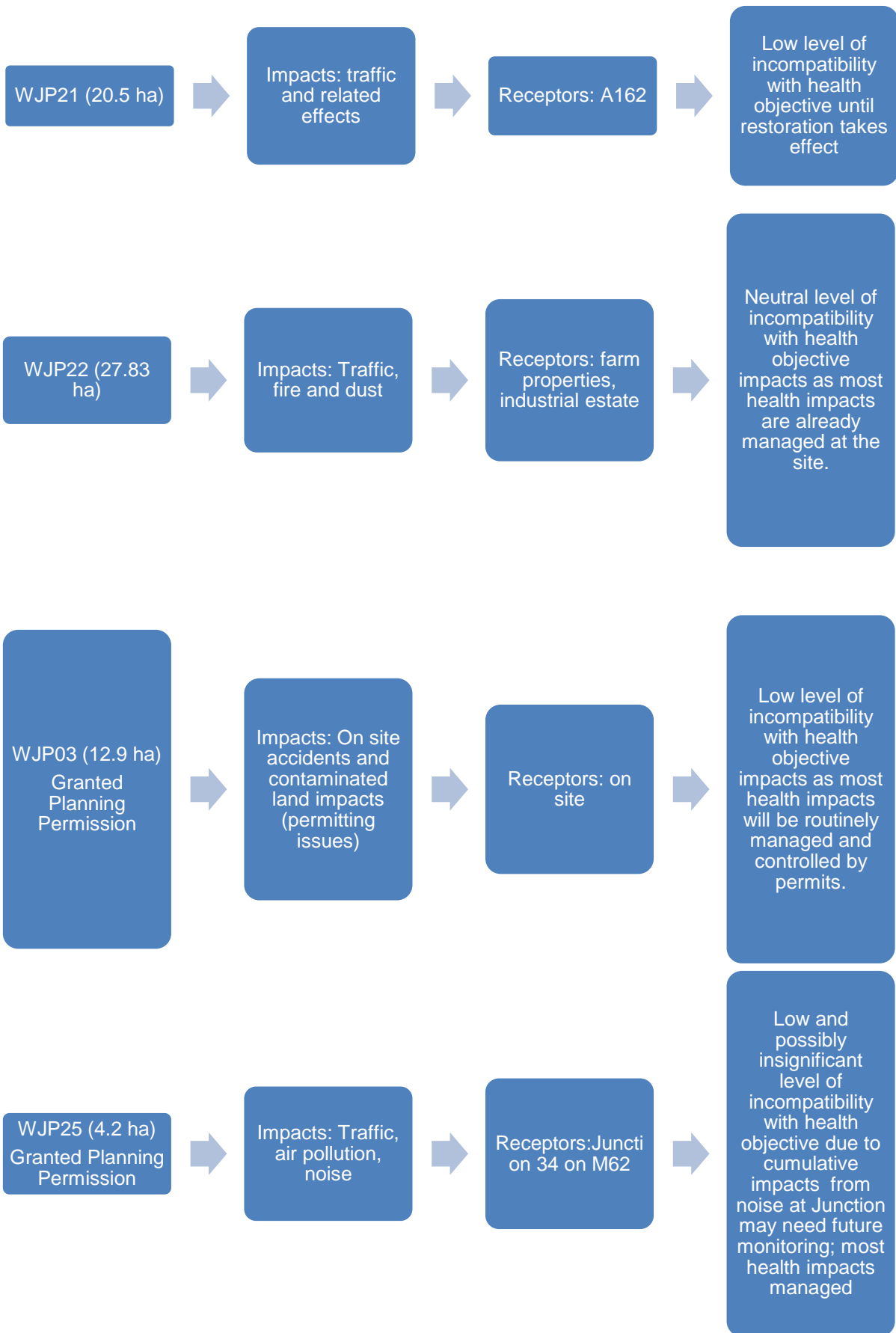
Table 20: Sites in Selby District and Scores







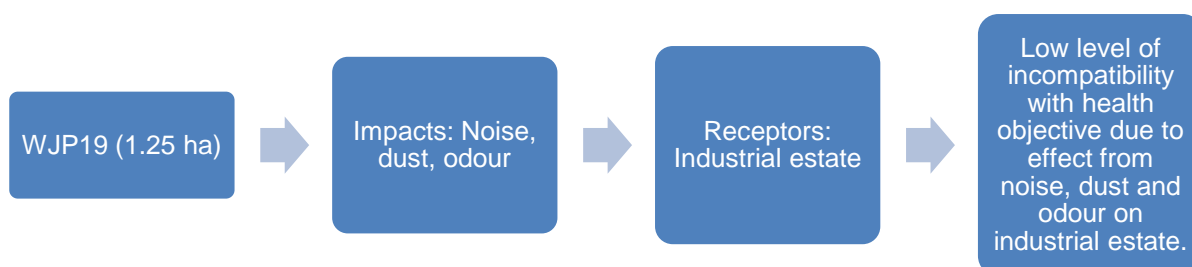




Sites in the North York Moors National Park and Health Effects

Site Reference and Name	Type of Site	Assessment Score for health SA Objective (15)		
		S	M	L
WJP19 Fairfield Road, Whitby	Recycling and transfer of municipal and commercial waste	-	-	-

Table 21: Sites in the North York Moors National Park and Scores

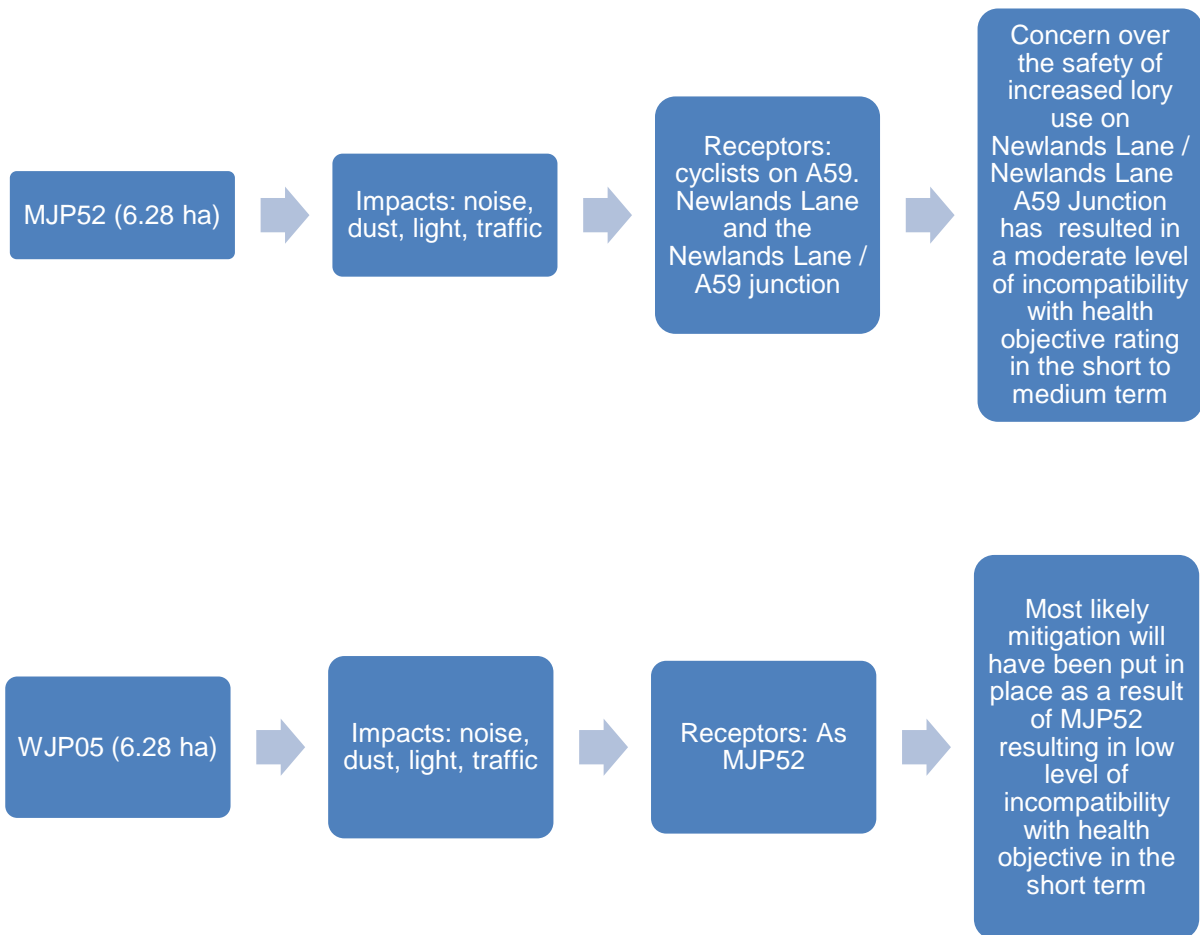


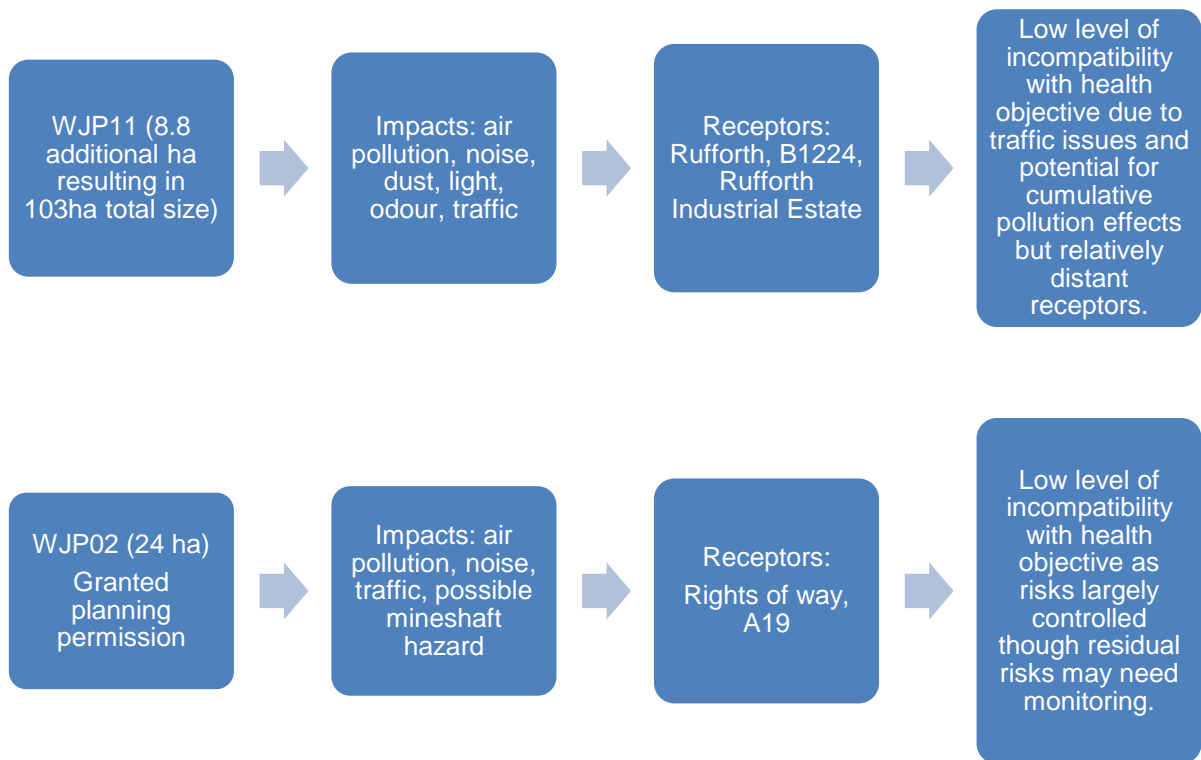
Sites in the City of York and Health Effects

Site Reference and Name	Type of Site	Assessment Score for health SA Objective (15)		
		S	M	L
MJP52 Field SE5356 9513, to north of Duttons Farm, Upper Poppleton	Extraction of clay	m-	m-	?
WJP05 Field to north of Duttons Farm, Upper Poppleton	Landfill and recycling of waste from construction industry	-	0	0
WJP11 Harewood Whin, Rufforth	Retention of the following facilities beyond 2017 <ul style="list-style-type: none"> • landfill, • open windrow composting, • recycling (including treatment bulking and transfer) and liquid waste treatment 	-	-	-

	<ul style="list-style-type: none"> • Energy from Waste (Biomass and Landfill Gas Utilization) • Kerbside recycling and waste transfer operation and construction of new materials recycling facility and waste transfer station 			
WJP02 Former North Selby Mine Site, Deighton	Anaerobic Digestion	-	-	-

Table 22: Sites in the City of York and Scores





Consideration of Areas of Search

Areas of search for further sand and gravel sites are also included in the Plan. These were assessed against the SA Framework following the Site and Area Assessment Methodology paper published on the [Joint Plan site assessment website](#). These assessments showed a range of effects including:

Area A: A few local rights of way might be affected by quarrying proposals, indirectly affecting active lifestyles, while dust from quarrying operations and transport may affect sites close to settlements or individual buildings, depending on location. Depending on routes taken there may be some increased chance of road accidents – e.g. if heavy goods vehicles route through settlements. If sites are restored to green infrastructure there could be some longer term benefits. There may also be some low level health benefits from job creation.

Area C: A few local rights of way and possibly a route of regional significance might be affected by quarrying proposals, indirectly affecting active lifestyles, while dust from quarrying operations and transport may affect sites close to settlements or individual buildings. Depending on routes taken by traffic there may be some increased chance of road accidents e.g. if heavy goods vehicles route through settlements, and air pollution from lorries may affect the Knaresborough AQMA. Mitigation measures, including routing agreements, appropriate standoff may mitigate these impacts.

If sites are restored to green infrastructure there could be some longer term benefits. There may also be some low level health benefits from job creation.

Recommendations

The sustainability appraisal process to date has made a number of recommendations to improve the Joint Plan's contribution to health. In relation to the policy appraisals, the SA found that health issues were generally mitigated by the Joint Plan's proposed development management policies, particularly policies such as D02: Local Amenity and Cumulative Impacts (which requires avoidance or mitigation for a range of unacceptable effects on local amenity including from:

- noise,
- dust,
- vibration,
- odour,
- emissions to air, land or water
- visual intrusion,
- site lighting
- vermin, birds and litter
- subsidence and land instability
- public health and safety
- disruption to the public rights of way network
- the effect of the development on opportunities for enjoyment and understanding of the special qualities of the National Park
- cumulative effects arising from one or more of the above at a single site and/or as a result of a number of sites operating in the locality

Because of the more specific nature of proposed site allocations a range of measures which may directly or indirectly mitigate health impacts were proposed for individual sites. These are listed in Table 23 below.

A range of additional recommendations are made to mitigate for wider environmental impacts that may also have an indirect effect on health. Readers should consult the full preferred options [SA documents](#) to review these recommendations.

Site Number	Site Name	Health Recommendation					Other Mitigation
		Mitigate Noise	Mitigate Dust	Mitigate Traffic Access	Flood Risk Measures	Rights of Way Mitigation	
Craven sites							
WJP13	Halton East, Near Skipton						
WJP17	Skibeden Landfill and HWRC, near Skipton						
Hambleton District sites							
MJP06	Langwith Hall Farm, East of Well						
MJP07	Oaklands, near Well						
MJP33	Home Farm, Kirkby Fleetham						Protection of the aquifer
Hambleton and Harrogate District (split) / Hambleton and Richmondshire (split)							
MJP11	Gebdykes Quarry, near Masham						Design to include appropriate arrangements for crossing road between existing quarry and MJP11 site and improvements to existing quarry access
MJP21	Land at Killerby						
MJP17	Land to South of Catterick						
Harrogate District Sites							
MJP14	Aram Grange, Asenby						
MJP10	Potgate Quarry, North Stainley						
WJP08	Allerton Park, near Knaresborough						
WJP24	Ripon Quarry, North Stainley						
Richmondshire sites							
WJP18	Tancred, near Scorton						
Ryedale sites							
MJP08	Settrington Quarry						
MJP30	West Heselton Quarry						Protection of the aquifer
MJP63	Brows Quarry,						

	Malton						
Scarborough sites							
WJP15	Seamer Carr, Eastfield, Scarborough						Protection of the aquifer, control of odour, bio-aerosols
Selby sites							
MJP45	Land to north of Hemingbrough						Design of development to mitigate impacts on leisure route
MJP55	Land adjacent to former Escrick brickworks						Protection of the aquifer. Design of development to mitigate impact on the leisure route (Trans Pennine Trail)
MJP28	Barnsdale Bar Quarry, Kirk Smeaton						Protection of the aquifer
MJP29	Went Edge Quarry, Kirk Smeaton						Protection of the aquifer
MJP23	Jackdaw Crag Quarry, Moor Lane, Stutton						Suitable arrangements for gas pipeline
MJP22	Hensall Quarry						
MJP44	Land between Plasmor Block making plant, Great Heck and Pollington Airfield						Protection of the aquifer
MJP54	Mill Balk Quarry, Great Heck						Protection of the aquifer
MJP09	Barlby Road, Selby						Design to include landscaping to mitigate impact on recreation facilities including Trans Pennine Trail.
MJP24	Darrington Quarry processing plant site and haul road						
MJP27	Darrington Quarry (recycling)						Protection of the aquifer
MJP26	Barnsdale Bar, near Kirk Smeaton (recycling)						Protection of the aquifer
WJP10	Went Edge Quarry recycling, near Kirk Smeaton						Protection of the aquifer
WJP16	Common Lane, Burn						Protection of the aquifer, mitigate for users of Trans Pennine Trail
WJP06	Land adjacent to former Escrick brickworks, Escrick						Design to include landscaping to mitigate impact on recreation facilities including Trans Pennine Trail.
WJP21	Brotherton Quarry, Burton Salmon						
WJP22	Land on former Pollington airfield						Protection of the aquifer
WJP03	Southmoor Energy Centre, former Kellingley Colliery						Planning permission granted
WJP25	Former ARBRE Power Station						Planning Permission granted
North York Moors National Park sites							
WJP19	Fairfield Road, Whitby						

City of York sites						
MJP52	Field SE5356 9513, to north of Duttons Farm, Upper Poppleton					
WJP05	Field to north of Duttons Farm, Upper Poppleton					
WJP11	Harewood Whin, Rufforth					Protection of the aquifer.
WJP02	Former North Selby Mine Site, Deighton					Site has planning permission

Table 23: Key Health, Wellbeing and Safety Recommendations for Sites

Appendix 1: Health Related Plans Reviewed During the SA Scoping Process

Plans relevant to improving health

- UN Sustainable Development Goals, 2015
- By all Reasonable Means: Inclusive Access to the Outdoors for Disabled People, 2005
- Countryside and Rights of Way Act, 2000
- Department of Health, Healthy Lives, Healthy People: Our strategy for Public Health in England, 2010
- !!UPDATE!! NHS Outcomes Framework 2015/16!!
- New Economics Foundation, Mental Wellbeing Impact Assessment, 2011
- Rights of Way Improvement Plans (York, North Yorkshire, Cleveland)
- Recreation and Access Strategy for the North York Moors National Park, 2008
- North Yorkshire Joint Strategic Needs Assessment, 2012 / JSNA update 2014-15
- North Yorkshire and York Healthy Weight, Active Lives Strategy, 2009-20
- York and Vale of York Clinical Commissioning Group Joint Strategic Needs Assessment (in development)

Plans pertinent to avoiding possible health effects from noise, air, water and land pollution:

- EU Directive on the Protection of Groundwater against Pollution and Deterioration (2006/118/EC)
- EU Urban Waste Water Directive (91/271/EEC)
- European Water Framework Directive (2000/60/EC) / Water Environment Regulations, 2003
- The Air Quality Framework Directive (2008/50/EC)
- Integrated Pollution Prevention and Control Directive (2008/1/EC)
- EU Directive on the Incineration of Waste (2000/76/EC)
- The Mining Waste Directive (2006/21/EC)
- EU Landfill Directive (99/31/EC)
- EU Waste Framework Directive / Waste Regulations, 2011
- DEFRA Water White Paper, 2011
- Environment Agency Groundwater Protection: Policy and Practice (GP3), 2012
- Air Quality Standard Regulations, 2010
- The Air Quality Strategy for England Volumes 1 and 2 (2007 and 2012)
- Control of Pollution Act, 1974 and amending acts
- DEFRA Model Procedures for the Management of Contaminated Land, 2004
- Environmental Permitting Regulations, 2010
- Environmental Protection Act, 1990
- Hazardous Waste Regulations, 2005
- Agricultural Waste Regulations, 2006
- DECC Strategy for the Management of Solid Low Level Radioactive Waste from the Non-Nuclear Industry (draft, 2010)
- National Planning Policy Framework, National Planning Policy for Waste, 2014
- River Basin Management Plan (Humber / Northumbria), 2009
- River Tyne to Flamborough Head Shoreline Management Plan, 2007
- DEFRA Low Emissions Strategies: Using the Planning System to Reduce Transport Emissions
- York Low Emission Strategy
- City of York Council Contaminated Land Strategy, 2010

- European Environmental Noise Directive (2002/9/EC)
- !!UPDATE!! DEFRA Noise Policy Statement for England, 2010

Plans pertinent to avoiding possible health effects from climatic factors

- Kyoto Climate Change Protocol, 2005
- United Nations Framework Convention on Climate Change Paris Accord, 2015
- EU Floods Directive (2007/60/EC)
- Flood and Water Management Act, 2010
- UK Climate Change Risk Assessment, 2012
- Climate Change Adaptation by Design (Town and Country Planning Association), 2007
- Planning for Climate Change (Town and Country Planning Association, 2012)
- The Climate Change Act, 2008, the Carbon Budget Order, 2011 and the Carbon Plan, 2011
- The National Adaptation Programme, 2013
- NHS Heatwave Plan for England, 2015
- Local Strategic Flood Risk Assessments
- Ouse Flood Risk Management Strategy
- Climate Change Strategy and Action Plan for York, 2010
- Adapting to Climate Change in the North York Moors National Park, 2011
- North Yorkshire County Council Climate Change Strategy, 2009

Appendix 2: Sustainability Appraisal and Health Impact Assessment

While various guidance documents on health impact assessment have been produced, there is recognition that to date there has been little development in achieving a prescribed methodology¹¹. However, some attempts have been made to define the major steps in the process. For instance, the North East Public Health Observatory (NEPHO - now part of Public Health England) advocate a 6 step process which includes screening scoping and assessment stages¹².

In 2010 the Department of Health (DOH) proposed a similar 5 stepped process. Like the NEPHO guidance, this includes a screening stage and an assessment stage, as well as stages called 'identify health impacts' and 'prioritise health impacts' which would broadly align with the scoping stage of the NEPHO guidance. This guidance also proposed a series of broad questions to help identify and prioritise impacts in particular, as shown in Table 1. It is notable that the DOH guidance shares a number of similarities to the Joint Plan SA approach to the consideration of health that has been applied to date, as illustrated by the second column of table A1.

DOH HIA Stage	How the SA considers health issues
Stage 1: Screening	Screening was not applied to SA as it is required by planning policy.
Stages 2 (identification) and 3 (Prioritisation) of Department of Health Guidance	
Describe the health impacts	The SA has described a baseline for population and human health and identified a series of key health issues for the SA to consider.
Will the health impacts affect the whole population or will there be differential impact within the population?	The SA adopts a source – pathway – receptor approach, so identifies where impacts occur in relation to a spatial receptor. It does make some links to socio-economic status as it records the position of sites (and thus impacts / opportunities) in relation to the index of multiple deprivation. It also includes a sub objective for policy assessment 'to reduce health inequalities'.
Will the health impacts be difficult to remedy or have an irreversible impact?	The SA notes if impacts are temporary or permanent and where appropriate suggests mitigation.
Will the health impacts be medium to long term?	The SA considers short, medium and long term impacts.
Are the health impacts likely to generate public concern?	Although not specifically addressed, impacts are rated in terms of their

¹¹ Johnson, P, 2014. Health Impact Assessment – where next? In Town and Country Planning, November, 2014 (pp.497-498).

¹² Public Health England, undated.

	magnitude of impact (minor to major)
Are the health impacts likely to generate cumulative and / or synergistic impacts?	Cumulative and synergistic effects are considered for all SA topics, including health.
Combining the answers, on balance will impacts have an important positive or negative impact on health?	The SA provides a commentary and an aggregate score for the issues that are covered under each SA objective.
Stage 4: Analysis: quantify or describe important health impacts	The SA provides a strategic commentary on impacts identified.
Stage 5: Recommendations to improve policy	The SA provides recommendations to improve policy and sites.

Table A1: Department of Health HIA processes compared to SA processes.

The most developed resource on HIA is the Association of Public Health Observatories (APHO) HIA Gateway. Like NEPHO, APHO is now a part of Public Health England. This includes a number of examples of HIAs, including HIAs of Local Plans, though no examples of minerals and waste plans that have been subjected to a HIA process. It does, however, include a small number of minerals projects that have been subjected to project level HIA.

The APHO HIA Gateway also includes guidance on considering health in SEA including a document entitled 'Draft Guidance on Health in SEA' produced by the Department of Health. This guidance includes a list of health related topics for different types of SEA. Table A2 contrasts the health topics referenced in this report with the approach taken in the Joint Plan SA.

Type of Plan	DOH SEA Topics to Consider	Extent that this is considered in Joint Plan SA
Minerals Development Plan	Contamination on surface water and land, and chemical releases	-Various legislation and plans considered, e.g. Water Framework Directive, Integrated Pollution Prevention and Control legislation, contaminated land guidance; -Baseline data on water and soil collected; -SA objectives on water quality and soil/land
	Dust	-Dust issues picked up under air quality objective
	Contaminated air, water and soil	-Various legislation on air (e.g. IPPC Directive) considered, groundwater, soil policy / guidance considered; -Baseline data on groundwater (e.g. Source Protection Zones, soil and air quality collated; --SA objectives on water quality (including groundwater) and soil/land

		and air quality
Waste Development Plan	Emissions to Air	-Considered in same way as minerals (as above)
	Dust Emissions	-Considered in same way as minerals (as above)
	Noise, odour	-Noise and odour legislation (e.g. Noise Directive, Environmental Protection Act) considered; -Baseline data on tranquillity considered (though assessment could be strengthened with newly available noise data); - SA objective on health and wellbeing includes sub objectives on noise and odour.
	Pollution to surface and groundwater	-Considered in same way as minerals (as above)

Table 2: DOH Suggested SEA Topics Considered Against Existing Topics in the SA¹³

APHO suggest that HIA can be integrated with SEA and term such assessments 'integrated impact assessments'. They may be helpful in reducing 'impact assessment fatigue' but run the risk of only superficially addressing issues if proper care is not taken¹⁴.

¹³ Table contains information derived from Department of Health, 2007. Draft Guidance on Health in Strategic Environmental Assessment [URL: <http://www.apho.org.uk/resource/item.aspx?RID=47085>]

¹⁴ APHO / Public Health England, undated. Integrated Impact Assessment [URL:

Appendix 3: Health Assessment for Site MJP34

This site was considered separately from the sustainability appraisal process due to its size. It was the subject of a planning application (NYM/2014/ 0676/MEIA), granted on 19 October 2015.

Sustainability Objective	Key Facts and Observations on Significance	P	T	D	I	S	M	L
15. To protect and improve the wellbeing, health and safety of local communities	<p>Proximity to population / community receptors / factors relevant to health and wellbeing This is a large site with multiple receptors including, zero village greens, extensive areas of common land, numerous rights of way, including national cycle route 1, national cycle route 165, the Cleveland Way National Trail and the Coast to Coast Walk Leisure Trail as well as numerous footways and bridleways. A small part of the north-east corner of the site is in the worst 20% of areas on the Index of Multiple Deprivation (Streonshalh). There are several small settlements across the site, plus the site fringes the larger settlements of Whitby, Scarborough and Goathland.</p> <p>Summary of effects on health and wellbeing <u>Local Effects</u> This site is for extraction of potash by underground methods, so impacts are largely to roads, or at limited surface infrastructure. The planning application submitted at this site suggested water impacts after mitigation would be negligible, which given the application has been approved is assumed to still be the case. Similarly air quality impacts were considered to be negligible, and noise impacts to local properties were considered negligible. Temporary intermittent minor adverse impacts on rights of way severance were also predicted at crossing points on one road. During construction 645 jobs would be employed, during operation 725 jobs would be created. Overall, low level incompatibility with the objective is predicted to occur due the combination of low level impacts, though the jobs provided would also bring some health / wellbeing benefits for employees.</p> <p><u>Plan level / regional / wider effects</u> None noted.</p>		✓	✓	✓	-	-	-

Contact us

Minerals and Waste Joint Plan Team Planning Services, North Yorkshire County Council, County Hall, Northallerton, North Yorkshire, DL7 8AH

Tel: **01609 780780**

Email: **mwjointplan@northyorks.gov.uk**