

# **Adding Value to a Minerals Core Strategy DPD via Sustainability Appraisal**

## **North Yorkshire County Council Minerals and Waste Development Framework Issues and Options Paper**

### **Background**

Following the introduction of the Planning and Compulsory Purchase Act (2004) (The Act) North Yorkshire County Council, like all other Local Authorities, is required to replace its local plans with a local development framework. In the case of North Yorkshire County Council the local development framework only relates to the County's functions as planning authority for minerals and waste developments. The development framework is therefore a Minerals and Waste Development Framework (MWDF).

A requirement of the Act is to undertake sustainability appraisal (SA) whilst producing all development plan documents and supplementary planning documents. However, no further detail of the requirements related to SA are given in the Act or supporting Regulations. The ODPM has produced a draft guide to SA that follows the principles of strategic environmental assessment (SEA), expanding them to cover wider sustainability issues. All development plan documents will also require formal SEA to assess the potentially significant effects on the environment. The Environmental Assessment of Certain Plans and Programmes Regulations (2004) set out the regulatory requirements that must be met when undertaking an SEA of a plan. A considerable volume of guidance also exists in relation to SEA covering potential methodologies, techniques to assess specific topic areas, etc. Most of the documents indicate the need to fully integrate SEA into the plan making process in order to minimise impacts whilst enhancing benefits and, thus adding value to the plan making process.

This case study aims to show how the SA/SEA process can add value during the production of a development plan document through the consideration of realistic options during the initial phases of plan development. The case study looks at the work undertaken by North Yorkshire County Council in relation to consideration of alternative policy approaches to their mineral core strategy. It considers how the SA/SEA was integrated into the process to help provide a robust and transparent assessment. The case study considers where value was added, by the work undertaken for the SA/SEA, to the plan making process during:

- The development of options / alternatives;
- Consultation on alternative approaches to key minerals issues;
- The comparison between alternative policy options;
- The selection of options;
- The initial assessment of potential cumulative effects resulting from interactions between policy options.

### **Adding Value: SA during Option Development and Consultation**

A requirement of SEA, and by proxy SA, is to assess the significant effects of a plan and its alternatives. A number of early examples of SEA simply considered different approaches to the overall development of a plan. For example, considering wide approaches, such as:

- Do nothing (generally a 'business as usual approach').
- Follow the preferred option (in line with government guidance);
- Develop the plan in a different direction (greater emphasis placed on one aspect of policy development).

This approach to alternatives indicates some form of options assessment has been undertaken, but it is questionable as to what added value this gives to the plan makers, and how realistic the alternative options are in terms of plan development.

North Yorkshire County Council has taken a different approach to the appraisal of alternatives within its minerals core strategy development plan document. The minerals core strategy document will set the policy context for future planning decisions related to mineral developments in North Yorkshire, outside of the National Parks, between 2008 and 2021. Discussion between the planning policy officers and the sustainability team indicated that any significant environmental / sustainability effects related to the plan are likely to be linked to the policies included within the core strategies. It became apparent that appraising alternative directions to the core strategy document as a whole avoiding any significant environmental / sustainability effects resulting from the document. As a result of this the development of the mineral core strategy was broken down into eight key issues (Box 1).

### **Box 1: – Key Minerals Issues for the MWDF and Minerals Core Strategy**

| <b>Key Issue</b>                                      | <b>Number of Options</b> |
|---|--------------------------|
| <b>1. Minerals Extraction and Resource Protection</b> |                          |
| a. Minerals Husbandry                                 | <b>3</b>                 |
|   | x                        |
| b. Protecting Mineral Reserves                        | <b>2</b>                 |
|   | x                        |
| <b>2. Environmental Protection</b>                    | <b>2</b>                 |
|   | x                        |
| <b>3. Aggregate Minerals</b>                          | <b>3</b>                 |
|   | x                        |
| <b>4. Energy Minerals</b>                             | <b>3</b>                 |
|   | x                        |
| <b>5. Non Aggregate Minerals</b>                      | <b>3</b>                 |
|   | x                        |
| <b>6. Development Control</b>                         | <b>2</b>                 |
|   | x                        |
| <b>7. Transport</b>                                   | <b>2</b>                 |
|   | x                        |
| <b>8. Site Restoration and After Use</b>              | <b>2</b>                 |
| <b>Total Options:</b>                                 | <b>2592</b>              |

Policies to be included in the minerals core strategy will relate to at least one of the mineral key issues, which were used to structure the minerals section of the MWDF Issues and Options Paper. The development of policies related to each of the key issues will be strongly influenced by Central and Regional Government guidance. The guidance often indicates the direction in which policy should be developed; however, it does not tend to be prescriptive allowing differences in the approach to policy development to be considered. The Council identified at least two different

approaches to developing policy for each of the mineral key issues, as set out in Box 1. These were jointly developed by the Council's minerals planners and those conducting the sustainability appraisal. An example of the policy approach options developed for sustainable minerals husbandry is set out in Box 2A.

## **Box 2A & B: Example of Policy Approach Options – Sustainable Mineral Husbandry**

### **2A: Key Issue 1: Mineral Extraction and Resource Protection**

#### **Sustainable Husbandry**

1. **Sustainable Mineral Husbandry Policy Approach 1:** The current Minerals Local Plan only includes mineral husbandry at the objective level with no policy provision in the plan. Although raising the profile of the issue the lack of policy is unlikely to directly lead to changes in the minerals industry and may therefore be ineffective in ensuring sustainable mineral husbandry is achieved. This may mean primary minerals are not used in the most efficient manner and there is no policy steer from the Council to develop alternatives to primary minerals.
2. **Sustainable Mineral Husbandry Policy Approach 2:** Include broad policies relating to sustainable husbandry of mineral resources outlining how the Council wishes to see this area develop in the future. This will provide a framework for sustainable husbandry based mainly on market forces. The efficient usage of primary minerals may increase and the development of alternatives to primary minerals should increase led by market forces.
3. **Sustainable Mineral Husbandry Policy Approach 3:** Set out spatial policy indicating how sustainable mineral husbandry can be achieved. Focus on targeting optimal usage of primary aggregates, with the aim of ensuring high quality mineral is not used where lower quality product would suffice. Policies would also be aimed at aiding the development of alternatives to primary minerals.

#### **Discounted Policy Approach:**

- **Do not include sustainable husbandry:** This approach has not been included as it was considered to have the same effects as sustainable mineral husbandry approach 1 in that no policy would be included in the Minerals Core Strategy.

### **Box 2B: SA Summary Table: Sustainable Mineral Husbandry**

| Key Issue:<br>1A  | Positive Effects |               |       | Negative Effects |               |       |
|-------------------|------------------|---------------|-------|------------------|---------------|-------|
|                   | Major            | Moderate      | Minor | Minor            | Moderate      | Major |
| Policy Approach 1 | 0                | 0             | 3     | 7                | 1<br>Heritage | 0     |
| Policy Approach 2 | 0                | 0             | 5     | 1                | 0             | 0     |
| Policy Approach 3 | 0                | 1<br>Minerals | 8     | 1                | 0             | 0     |

(NYCC, MWDF Issues & Options Paper, July 2005)

Box 2 presents three approaches developed to meet the broad requirements of government guidance whilst presenting realistic alternatives to both the plan makers and consultees. The Council's Issues and Options Paper included a consultation question under each mineral key issue relating to the selection of a preferred approach to policy development. The information in Box 2 was included on the next available page to allow consultees to make an informed decision. A brief description was also included in the Issues and Options Paper indicating why apparently obvious approaches to policy development had not been considered, Box 2A. The most common reason for not considering an option was that the approach would fail to meet requirements set out in government guidance.

Each of the policy approach options has the potential to have both positive and negative effects on sustainability and the environment. In order to allow the plan makers and consultees to make an informed decision, as to which approach should be followed when developing policies, the sustainability of each option was appraised and presented alongside the policy options. This allowed the findings of the SA to be integrated into the development of the plan at an early stage, highlighting where different approaches can lead to greater impacts or benefits in relation to sustainability issues. At this stage of plan development there are no definitive policies therefore the SA cannot produce a quantified assessment of effects on the existing baseline environment. The approach developed by the Council has therefore been to advance the SA, at this stage, as a qualitative appraisal based on defined levels of positive or negative effects, Box 3.

### **Box 3: Definition of Appraisal Scoring**

#### **Level of Effects**

**Major Positive** – If the DPD follows this option it could lead to an important opportunity, or series of long-term opportunities, to promote large scale permanent benefits to the sustainability objective being appraised.

**Moderate Positive** – If the DPD follows this option it could lead to an important opportunity to promote large scale temporary benefits to the sustainability objective being assessed, or lead to opportunities to generate mid-range permanent improvements to the objective.

**Minor Positive** – If the DPD follows this option it could lead to opportunities to promote small scale permanent benefits to the sustainability objective being appraised or lead to mid-range temporary benefits of a wider nature.

**Neutral** – Following this option in the DPD is unlikely to pose a threat to the sustainability objective under consideration. There may be minor threats or benefits related to this option, however, if such threats / benefits exist they are more appropriately considered either at the policy development stage of the core strategies, in plans lower down the hierarchy (such as the site allocations) or at the project development stage. \*

**Minor Negative** – Effects arising from carrying out this option have the potential to cause either permanent small scale effects to the sustainability objective. Or mid-range temporary effects which could affect the sustainability objective to a larger degree but have the capacity to be mitigated to a neutral score at a later date through mitigation, such as the definition of policy to protect the objective.

**Moderate Negative** – Effects arising from carrying out this option have the potential to cause large scale / severe temporary effects, which can be mitigated and / or reduced over time. Or mid-range permanent effects which could cause damage / disturbance to the sustainability objective being appraised.

**Major Negative** – Effects arising from carrying out this option have the potential to cause severe damage or destruction to the sustainability objective being considered, they are irreversible and difficult to alleviate.

\*Any such issues will be noted in the appraisal to ensure they are retained and considered at the appropriate level of assessment.

## **SA Options Methodology**

The policy approach options were appraised against each of the sustainability objectives, developed at the scoping stage of the SA/SEA. The appraisal took the form of a table, with each of the options presented across the top of the page with the sustainability issues down the side. The appraisal initially considered whether there was a link between the options being considered and each sustainability objective. If a link could not be determined 'no connection' was input into the table. Where a link was identified the scoring definitions, Box 3, were used to identify the scale of effect and whether the effect would be as a direct result of following the option or whether it would result from knock-on effects linked to the option.

The SA found that a number of the policy approach options had the potential to lead to sustainability effects on a site specific basis. Where this was the case a 'neutral' score was indicated in the SA table and the accompanying text indicated that any effect would be dependent on individual site characteristics. The SA approach did not present site specific effects on the environment / sustainability as the options being appraised relate to the development of core strategy policy. Where 'neutral' values have been assigned in relation to potential site specific effects this information will be used to aid in the scoping of the Minerals Site Allocations development plan document SA/SEA.

The appraisal was carried out by the sustainable development policy officer assigned to the MWDF. Initial results were presented, for review, to the Council's sustainability team and internal experts on various sustainability issues, such as heritage, waste, highways, etc. The SA results were also considered by the mineral planning team to ensure that each of the defined policy approaches had been interpreted correctly. Where the review highlighted differences in relation to the potential sustainability effects these were discussed and amended as appropriate.

The completed core strategy policy option sustainability appraisal tables were presented in an appendix to the Council's MWDF Issues and Options Paper. This was in order to improve integration of the SA results with the plan making process. SA summary tables were also produced and incorporated within the Issues and Options Paper text as 'data sheets', relating to each of the minerals key issues, Box 2B. The summary chart clearly presents the SA results of each of the options, and highlights where policy approach options may have greater effects on sustainability issues. This allows consultees to consider sustainability issues whilst studying the policy options for each minerals key issue. For example, Box 2B indicates that Sustainable Mineral Husbandry Approach 1 may lead to moderate negative effects in relation to conserving and enhancing the historic environment and cultural heritage within the plan area.

*Value Added during these stages:*

1. *fdhdf* **[TO BE ADDED]**
2. *gfjghi*
3. *kyulojh*
4. *tykuo*

## Adding Value: SA Option Selection and Avoidance of Cumulative Impact

Box 1 indicates that there are 2592 different combinations of policy approach options in relation to the minerals core strategies key issues. Each of these combinations of options has the potential to have different sustainability effects across the plan area. The resulting combinations of approaches to different mineral key issues may lead to cumulative effects on different sustainability issues. The results of the SA of the minerals key issues need to be analysed in order to ascertain the following:

1. Which combination of minerals key issues options is recommended by the SA and SEA?
2. What sustainability effects would occur as a result of following options preferred by those who responded to the consultation?
3. How do the preferred options, selected for minerals core strategy policy development, compare to alternative approaches, in terms of overall sustainability?
4. What are the potential cumulative effects of the preferred options? The answer to this question is perhaps most important as it will identify where the plan makers will need to pay close attention to policy development in order to avoid / mitigate negative effects and enhance benefits.

The results of any analysis need to be readily understandable to the plan makers and stakeholders, whilst also providing the answers to the above questions. Due to the large number of combinations requiring analysis, and the need to present results in a clear summary format a spreadsheet based analysis tool was developed. The methodology needed to rapidly produce the SA results of any combination of options and present this analysis in a clear and concise manner. The analysis tool developed uses the SA results generated by each policy option on individual sustainability objectives. The tool simply summarises the SA results of the options selected, for each minerals key issue, the data is therefore not manipulated in anyway. The results are a summary of the sustainability effects of any given set minerals key issue options and are reproducible by hand. The process avoids data manipulation and therefore provides a clear and concise review of the sustainability effects of any combination of mineral key issue options.

The qualitative nature of the SA results, at this stage of core strategy development, allows the results to be easily entered into a spreadsheet. The analysis tool is made up of a number of spreadsheets:

1. **Options Selection:** The selected mineral key issue options are entered into this input this spreadsheet.
2. **Mineral Key Issue Options SA Results:** This spreadsheet contains the results of the Issues and Options SA.
3. **Selected Options SA Results:** This spreadsheet selects the appropriate results from spreadsheet 2 base on the options selected in spreadsheet 1.
4. **Comparative Results Selected Options Vs All Option Combinations:** This spreadsheet uses the results generated in spreadsheet 3 to produce a graph of the overall sustainability effects of the options in comparison to the effects of all other potential combinations of options, an example is presented in Box 5.
5. **Cumulative Effects of Selected Options on the Sustainability Objectives:** This spreadsheet uses the results generated in spreadsheet 3 to produce a table of the combined effects of the selected options upon each of the sustainability objectives.

Spreadsheet 2 indicates the effects of each mineral key issue option on the various sustainability objectives at each level of sustainability effect (Box 3), e.g. moderate positive, minor negative, etc. The results of the SA were input into spreadsheet 2; where the SA indicated an option lead to

sustainability effects on a sustainability objective the value **1** was entered into the table; where no effect had been identified the value **0** was input. The results were then summed for the selected options chosen relating to the minerals key issue. Spreadsheets 4 and 5 provide the outputs from the analysis; the first indicates how the selected approach compares, in terms of sustainability effects, with all 2591 other potential approaches, Box 5; the second presents an initial appraisal of the combined effects of the selected options on sustainability, Box 6.

Box 5 indicates the overall sustainability of the options selected, the more sustainable the options selected are the higher the scores generated on the moderate and minor positive bars and the lower the scores on the moderate and minor negative scores. Box 5 indicates that positive and negative sustainability effects will be generated by any combination of minerals key issue options being selected. The analysis presented in Box 5 indicates that the SA recognises that, at this stage of plan development, all potentially negative effects cannot be avoided; the policy development stage will therefore need to focus on mitigating any such effects.

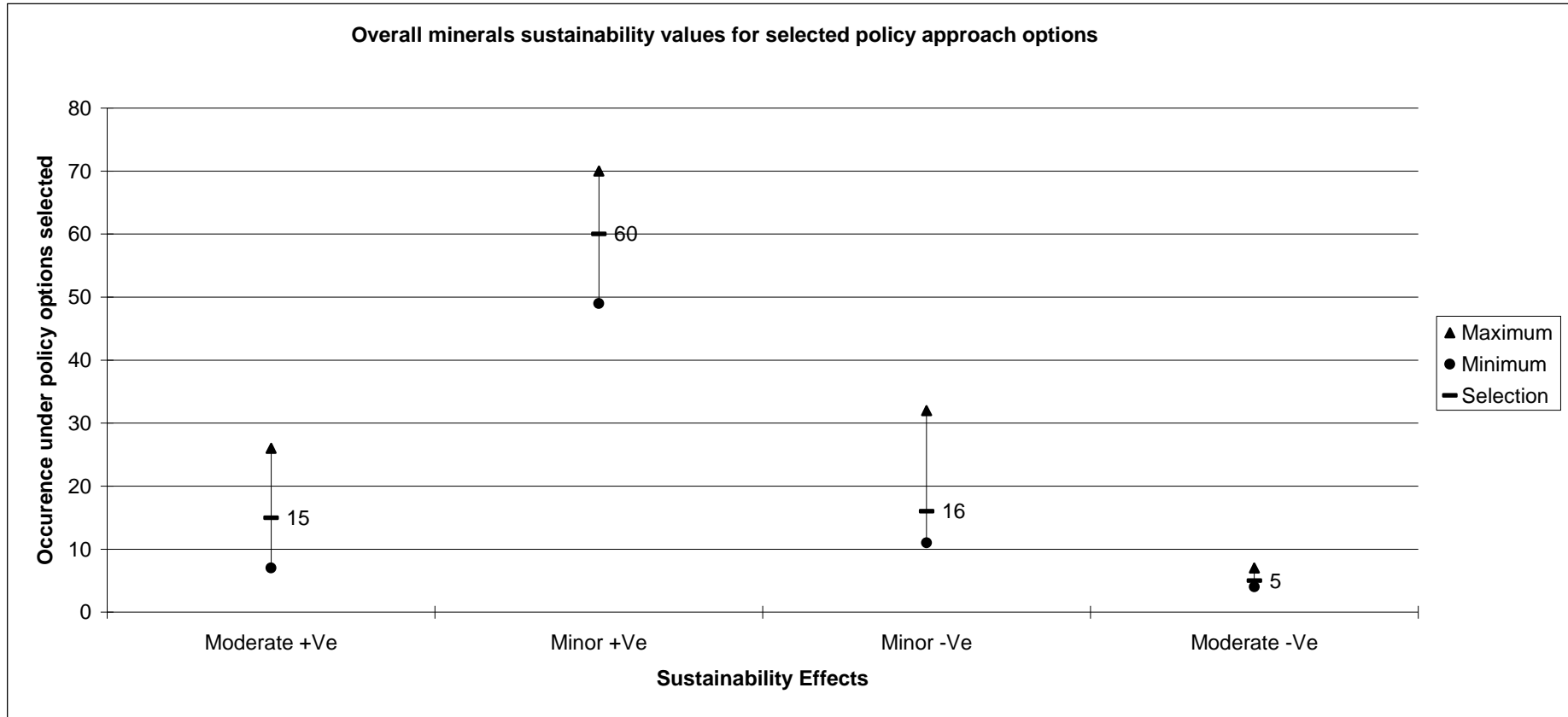
The SA results presented in Box 5 indicates that the mineral key issue options selected are not the most sustainable only leading to a mid-range level of sustainability benefits and relatively low levels of impacts. The preferred SA and SEA results of options selection would lead to a greater number of benefits whilst reducing the level of impacts. This output graph therefore allows the plan makers to consider how their selection of preferred options may lead to sustainability effects, compared to other combinations of options. The aim of this is to allow the plan makers to understand the potential sustainability consequences of the preferred options selected for policy development and ensure they consider the justification as to why a more sustainable option has not been followed.

Spreadsheet 4 can be used to generate results for all sustainability objectives, or just those relevant to SEA. As a result of this 2 preferred programmes can be developed, that minimises negative effects and maximises positive outcomes, one in relation to SA and the second to SEA. The mineral key issue options that generate preferred SA and SEA approaches to policy development are then feedback to the planners as the output of the Issues and Options Paper SA / SEA processes. The plan makers will need to take account of the preferred SA / SEA options selections, in a similar way to considering responses from consultees, and be able to justify their reasoning if policy is then developed based on a different set of options. It is unlikely that the plan makers preferred approach will exactly match the options proposed by the SA / SEA analysis. The preferred options selected by the plan makers will be expected to generate fewer negative and more positive effects than the majority of SA results produced by other combinations of options. A SA summary graph, similar to that presented in Box 5, will be produced and presented in the Mineral Core Strategy Preferred Options Paper to clearly indicate the sustainability effects of the preferred options selected. The summary graph, produced by spreadsheet 4, can also be used to indicate the sustainability effects of mineral key issues options selected by consultees in responses to the Issues and Options Paper.

*Value Added from comparative appraisal of SA results:*

5. *fdhdf* **[TO BE ADDED]**
6. *gfjghi*

**Box 5: Comparative Summary of Selected Minerals Policy Approach Options**



| Policy Option Programmes | Moderate +Ve | Minor +Ve | Minor -Ve | Moderate -Ve |
|--------------------------|--------------|-----------|-----------|--------------|
| Maximum                  | 26           | 70        | 32        | 7            |
| Minimum                  | 7            | 49        | 11        | 4            |
| Selection                | 15           | 60        | 16        | 5            |

Box 6 shows a table outlining the combined sustainability effects of a set of key mineral issue options on individual sustainability objectives, such as energy, nuisance, and water. As with the graph presented in Box 5 the table has been developed to show a summary of the sustainability effects in a clear and transparent manner. The key, attached to Box 6, indicates that the darker the colour of highlighting shown the greater the number of mineral key issue options that lead to sustainability effects on any particular sustainability objective. The combined sustainability effects table presents a detailed summary of the combined sustainability effects of the options selected. It can be used to identify where the selected options may lead to negative sustainability effects and therefore where mitigating policy may need to be developed during mineral core strategy policy development.

The major benefit of the table is that it presents an early indication of where potential cumulative sustainability effects may occur as a result of the options selected. For example, the options selected in Box 6 indicate cumulative negative effects may occur to heritage, climate change and energy sustainability objectives. This output of the SA analysis provides the plan makers with an early warning as to where policy development may lead to cumulative effects in relation to specific sustainability issues. The table may also provide an initial outline of how mitigation to any negative effects may be achieved by highlighting where some selected options lead to benefits and other lead to impacts in relation to the same sustainability objective. For example, the *Biodiversity* sustainability objective, Box 6, is predicted to lead to a greater level of positive effects than negative ones, it may be the case that policies developed under options leading to positive effects will mitigate predicted negative effects. The analysis therefore provides the plan makers with an early overview of sustainability issues that may benefit from the preferred core strategy options and those that may be negatively affected, allowing mitigating policy to be developed to counter act such effects.

*Value Added from cumulative effects appraisal of SA results:*

7. fdhdf **[TO BE ADDED]**
8. gjfthi

## **Summary**

This case study indicates that an SA that is developed in an integrated fashion with the development of a plan document can add value in a number of ways. The primary goal of any SA is to assess the significant effects of a plan on sustainability. This case study shows that the SA process, at the Issues and Options stage, can add value by indicating the options that will lead to more sustainable plans and identify which sustainability issues may be significantly affected either as a consequence of a single option or a combination of options leading to cumulative effects. Another aim of the SA process has been to provide a robust and transparent process accessible by all. The case study has indicated the Issues and Options Paper SA was made full available to public consultation; however, summary sheets were presented alongside questions within the Paper to ensure consultees understood the sustainability implications of following each of the options presented.

**Box 6: Summary of the combined sustainability effects of an example selection of minerals key issue policy approach options**

| Minerals Sustainability Objectives | Moderate Positive | Minor Positive | Minor Negative | Moderate Negative |
|------------------------------------|-------------------|----------------|----------------|-------------------|
| Transport                          | 1                 | 2              | 0              | 1                 |
| Heritage                           | 2                 | 3              | 1              | 1                 |
| Soil & Geology                     | 2                 | 2              | 1              | 0                 |
| Landscape                          | 2                 | 1              | 2              | 0                 |
| Nuisance                           | 0                 | 3              | 0              | 0                 |
| Economic Development               | 1                 | 6              | 2              | 0                 |
| Employment                         | 0                 | 2              | 0              | 0                 |
| Water                              | 0                 | 3              | 1              | 0                 |
| Air & Emissions                    | 0                 | 2              | 3              | 0                 |
| Climate Change                     | 0                 | 5              | 1              | 1                 |
| Tourism                            | 0                 | 2              | 0              | 0                 |
| Recreation                         | 0                 | 4              | 0              | 0                 |
| Local Provision                    | 0                 | 5              | 0              | 0                 |
| Infrastructure                     | 0                 | 3              | 0              | 0                 |
| Biodiversity                       | 3                 | 1              | 1              | 0                 |
| Land                               | 0                 | 5              | 0              | 0                 |
| Rural Affairs                      | 0                 | 2              | 0              | 0                 |
| Energy                             | 1                 | 2              | 2              | 1                 |
| Waste                              | 0                 | 2              | 2              | 0                 |
| Education                          | 0                 | 0              | 0              | 0                 |
| Safety & Well Being                | 0                 | 1              | 0              | 0                 |
| Minerals                           | 3                 | 3              | 0              | 1                 |
| Social Exclusion                   | 0                 | 0              | 0              | 0                 |
| Health                             | 0                 | 0              | 0              | 0                 |
| Accommodation                      | 0                 | 0              | 0              | 0                 |
| Participation                      | 0                 | 1              | 0              | 0                 |
| Security                           | 0                 | 0              | 0              | 0                 |

**KEY**

| Moderate Positive  | Minor Positive     | Minor Negative    | Moderate Negative |
|--------------------|--------------------|-------------------|-------------------|
| 3 or more benefits | 5 or more benefits | 5 or more impacts | 2 or more impacts |
| 2 benefits         | 3-4 benefits       | 3-4 impacts       | 1 impact          |
| 1 benefit          | 1-2 benefits       | 1-2 impacts       |                   |

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