

**Bedfordshire County Council and Luton
Borough Council Minerals Development
Framework**

**Sustainability Appraisal of the Issues and
Options**

Appendix 3: Appraisal of Site Clusters

*ENVIRON UK Limited
Swallow Court, Devonshire Gate,
Tiverton, Devon , EX16 7EJ
Tel: 01884 842 010*

Cluster 1

Sites: 3, 6, 7, 8, 9, 10, 11, 12, 30, 31, 32, 33, 34, 35, 39, 47.

| SA Objective and Criteria | Summary of impact (including nature and spatial extent of the impact, probability, duration, frequency and reversibility). | Significance of the effect | | |
|---|---|----------------------------|--------|------|
| | | Short | Medium | Long |
| Biodiversity and earth science | | | | |
| <p>To what extent are land based resource blocks constrained by designated areas e.g. National Nature Reserves, SSSIs, and SACs etc.?</p> <p>To what extent does the proposed cluster threaten the qualities of designated areas?</p> | <p>The cluster is located along the course of River Great Ouse down stream of Bedford. The closest SSSI is 4.5km from cluster and there are no NNRs within 5km. The main issues are maintaining the water table and flood plain issues. Care would have to be taken not to permanently damage priority plant and wildlife populations though these sites could be restored to increase wetland habitats thus increasing biodiversity in the long term.</p> | O | O | G |
| Archaeology and cultural heritage | | | | |
| <p>To what extent are land based resource blocks constrained by designated sites or Conservation Areas?</p> <p>To what extent does the proposed cluster threaten the qualities of designated areas?</p> | <p>About 50% of the cluster is covered by an Area of Archaeological Interest. Apart from a few identified specific issues (sites MD 7,9,11). The overall nature of the archaeological and cultural effect is uncertain without further investigation into the likelihood of archaeological finds within the cluster.</p> | O | O | O |
| Landscape | | | | |
| <p>To what extent are land based resource blocks constrained by designated areas e.g. National Parks etc.?</p> <p>To what extent does the proposed cluster threaten the qualities of designated areas?</p> | <p>The cluster has a landscape character designation of Type 4: Clay River Valleys and the quality of this landscape is in an overall poor condition. The landscape strategy for the area is to improve features of the landscape that evoke a strong sense of place such as areas of pasture which help to distinguish the valleys from the adjacent vales. Phased working and restoration could mitigate these impacts. There is potential to improve the wetland character of the area and the ecological value of the river corridors. Care would be needed to reduce the visual impact of sites in this cluster as some site will be visible from a significant distance. Only one site in the cluster MD4 is in an Area of Great Landscape Value.</p> | R | R | G |
| Land take | | | | |
| <p>To what extent do land based resource blocks conflict with areas of best and most versatile agricultural land?</p> | <p>Approximately 15% of the cluster is of Agricultural Land Value 1 and 40% Agricultural land value 2. These areas are designated by DEFRA as the highest quality agricultural land. This value will be lost if the site is restored for uses other</p> | R | R | R |

Cluster 1
Sites: 3, 6, 7, 8, 9, 10, 11, 12, 30, 31, 32, 33, 34, 35, 39, 47.

| SA Objective and Criteria | Summary of impact (including nature and spatial extent of the impact, probability, duration, frequency and reversibility). | Significance of the effect | | |
|---|---|----------------------------|--------|------|
| | | Short | Medium | Long |
| To what extent do land based resource blocks help achieve the objectives of the wider development framework (i.e. contribution to amenity, landscape, biodiversity objectives through restoration). | than agriculture. | | | |
| Human health and amenity | | | | |
| What level of nuisance or effect on quality of life or human health (for both existing or planned residential areas) is likely to occur as a result of the proposed cluster? Note: (This assessment includes loss of amenity) | <p>The cluster is mainly located along the River Great Ouse which is a navigable river at this point and is used for recreational purposes (such as boating, walking, and cycling). If numerous sites were developed within the cluster, it could negatively affect its recreational value/use. Care must also be taken to avoid adverse effects on the Danish Camp Riverside Visitor Centre.</p> <p>If the sites in this cluster were to be developed there would be, in the short and medium term, negative impacts. This is due to the close proximity of the minerals sites to residential developments. Settlements affected would include: Great Barford, Willington, Moggerhanger, Cople, and Wyboston.</p> | R | R | G |
| Transportation | | | | |
| <p>Which mode of transport (rail, road or water) is most likely to be used in the transportation of the aggregate?</p> <p>Is the cluster near to the strategic highway network? These are different from the other objectives – it is unclear to me what would be a positive/negative score. Are there certain assumptions here that could be explained in the methods section? E.g. are some modes assumed better for the environment than others, and is vicinity to the network considered positive</p> | <p>Several of the sites in the cluster are within 1km of the strategic highway network MD 31, 32, 33, 35 and 39 though this would mean that some sites would have to move minerals via LGV through local villages. Careful routing would be required to minimise the negative impacts of mineral transportation.</p> <p>The River Great Ouse is close to the boundary of many sites in the Cluster. This river is navigable from this point to the North Sea at King Lynn and is currently used for recreation. This river represents a potential opportunity to carry minerals by barge from some of the sites to an unloading point downstream from Cluster 1. Appropriate barges (River has a 50 tonne barge carrying capacity) and loading and unloading infrastructure would be required. Assuming this mode was considered, care would have to be taken not to disrupt the amenity and biological value of the river as well as allowing access to the bridleway that follows much of</p> | R | R | G |

Cluster 1

Sites: 3, 6, 7, 8, 9, 10, 11, 12, 30, 31, 32, 33, 34, 35, 39, 47.

| SA Objective and Criteria | Summary of impact (including nature and spatial extent of the impact, probability, duration, frequency and reversibility). | Significance of the effect | | |
|--|--|----------------------------|--------|------|
| | | Short | Medium | Long |
| | <p>the route of the river. A dismantled railway, part of the old Bedford to Cambridge line, runs through the cluster. Currently this is used as part of the national cycling network Sustrans route 51. The Bedfordshire Railway Transport Association would like to see full re-opening of this route to Willington. This would mean that a large amount of quarrying material could be taken by rail. The cost and feasibility of this needs investigation.</p> <p>There are few issues with pipeline infrastructure. An oil pipeline crosses MD7 and a dual water main crosses MD35, and there are overhead power lines crossing MD3, 6, and 9. These may need to be diverted or safeguarded on these sites. Four sites are crossed by footpaths whilst a further four have footpaths on the boundaries including the north part of MD6 which is surrounded by footpaths.</p> | | | |
| Extent of remaining landbank | | | | |
| To what extent does the proposed cluster minimise impacts on existing landbanks? i.e. contribute to landbanks through reserves <i>(this may be an issue related to silica sand only)</i> | This cluster has no applicable silica sand deposits. Therefore no assessment is being made. | N/A | N/A | N/A |
| Conservation and protection of water resources | | | | |
| To what extent are water resources used or impacted upon for the extraction of the aggregate? | All of the sites have some land in the floodplain of the River Great Ouse, significantly affected sites (by area) are MD3, 6, 7, and 9 where production during flood events may be partly or totally curtailed. All of the sites are also wholly or in part within the Bedford internal drainage board area. If the sites were remediated to store water they may provide opportunities to alleviate flooding lower down the River Great Ouse or to provide additional water resources to help the river in drought periods. There are uncertainties about the nature of the impact and further investigation is required. | O | O | G |
| Waste management | | | | |
| How much waste is likely to be produced per tonne of aggregate? <i>(this may be an issue related to silica sand only)</i> | There is no information from the sites appraisal on this topic; therefore no clear cluster assessment can be made. | N/A | N/A | N/A |

Cluster 1

Sites: 3, 6, 7, 8, 9, 10, 11, 12, 30, 31, 32, 33, 34, 35, 39, 47.

SA Objective and Criteria**Summary of impact (including nature and spatial extent of the impact, probability, duration, frequency and reversibility).****Significance of the effect****Short Medium Long**

Other planning considerations

To what extent are resource blocks affected by other constraints e.g. CAA Guidance CAP680? (Aerodrome Bird Control).

Three schools are within less than 1km of sites within the cluster at Willington, Roxton, Great Barford. The impacts to the schools are potential nuisance from quarry operations such as noise and severance issues caused by road transport. Parts of MD11 & 30 are within an aircraft Safeguarding zone or direction. This designation means that water based restoration in this specific part of the cluster is unlikely to be permitted. There are also significant areas of minerals permissions adjacent to SW and North of the cluster, though only 1 former minerals site.

O

O

G

Cluster 2

Sites: 1, 4, 5, 15, 16, 16, 17, 27, 28, 36, 40, 45.

SA Objective and Criteria

Summary of impact (including nature and spatial extent of the impact, probability, duration, frequency and reversibility).

Significance of the effect

Short Medium Long

| | | Short | Medium | Long |
|--|--|-------|--------|------|
| Biodiversity and earth science | | | | |
| To what extent are land based resource blocks constrained by designated areas e.g. National Nature Reserves, SSSIs, and SACs etc.? To what extent does the proposed cluster threaten the qualities of designated areas? | The cluster is located along the River Ivel. There is no direct land take from designated sites. However, there will potentially be negative effects on an NNR, SSSIs and CWSs. Care will need to be taken to protect the NNR, SSSIs and CWSs in the area. There is a lot of potential for habitat re-creation during site restoration. | R | R | O |
| Archaeology and cultural heritage | | | | |
| To what extent are land based resource blocks constrained by designated sites or Conservation Areas? To what extent does the proposed cluster threaten the qualities of designated areas? | Most of the sites are within areas of archaeological interest. The risks of the negative impacts on archaeological and cultural heritage are not clear. More research is required. | O | O | O |
| Landscape | | | | |
| To what extent are land based resource blocks constrained by designated areas e.g. National Parks etc.? To what extent does the proposed cluster threaten the qualities of designated areas? | The cluster has a landscape character designation of Type 4: Clay River Valleys and the quality of this landscape is identified as being in an overall poor condition. The landscape strategy for the area is to improve features of the landscape that evoke a strong sense of place such as areas of pasture which help to distinguish the valleys from the adjacent vales. The wetland character of the area also needs to be improved along with the ecological value of the river corridors. The impacts are potentially significant as many of the sites will be visible from a wide area. The cluster is adjacent to an Area of Great Landscape Value (AGLV) and 1 of the sites falls within the AGLV. Phased working and restoration could mitigate these impacts. | R | R | G |
| Land take | | | | |
| To what extent do land based resource blocks conflict with | Most of the sites in this cluster are in part or entirely classified as either Grade 1 or | R | R | R |

Cluster 2

Sites: 1, 4, 5, 15, 16, 16, 17, 27, 28, 36, 40, 45.

| SA Objective and Criteria | Summary of impact (including nature and spatial extent of the impact, probability, duration, frequency and reversibility). | Significance of the effect | | |
|---|--|----------------------------|--------|------|
| | | Short | Medium | Long |
| <p>areas of best and most versatile agricultural land?</p> <p>To what extent do land based resource blocks help achieve the objectives of the wider development framework (i.e. contribution to amenity, landscape, biodiversity objectives through restoration).</p> | <p>2 agricultural land. These areas are designated by DEFRA as the highest quality agricultural land. This value would be lost if site restoration was for purposes other than agriculture which may happen due to changes in landfill regulations See www.qpa.org/pdf/inertfull.pdf on inert wastes . Minerals development in this cluster may therefore negatively affect areas of best and most versatile agricultural land.</p> | R | R | R |
| Human health and amenity | | | | |
| <p>What level of nuisance or effect on quality of life or human health (for both existing or planned residential areas) is likely to occur as a result of the proposed cluster?</p> | <p>If the sites in this cluster were to be developed there would be, in the short and medium term, negative impacts. This is due to the close proximity of the minerals sites to residential developments. Settlements affected would include: Beeston, Biggleswade, Seddington, Sandy, Stanford, Broom, Langford, Everton.</p> | R | R | G |
| Transportation | | | | |
| <p>Which mode of transport (rail, road or water) is most likely to be used in the transportation of the aggregate?</p> <p>Is the cluster near to the strategic highway network?</p> | <p>Road traffic is the most likely transportation option for the minerals sites. The quarry traffic would reduce once the sites have been closed. The sites in this cluster are close to the A1. However, sites to the east of the A1 will need to travel significant distances to avoid travel through villages or conurbations. An increase in road traffic will have a negative impact on local residents and the environment. In the cluster there is a potential opportunity to use the railway network. Site MD 5 is adjacent to a rail line and most other sites in the cluster are less than 2 km from a rail line. However there are currently no loading and unloading facilities on this section of line for aggregates.</p> <p>A large number of footpaths can be found in this cluster. Several footpaths will be affected by the development, including Footpaths Southill 6 and 7, Potton 12, Northill 11 and 15, Sandy 11 and 40, Old Warden 1 and 3. Some of these footpaths form part of Greensand Ridge Walk, the County's premier promoted route.</p> <p>An oil pipeline crosses this cluster, through MD4 and 27. In addition, an overhead powerline crosses along the boundary of MD 41.</p> | R | R | G |

Cluster 2

Sites: 1, 4, 5, 15, 16, 16, 17, 27, 28, 36, 40, 45.

| SA Objective and Criteria | Summary of impact (including nature and spatial extent of the impact, probability, duration, frequency and reversibility). | Significance of the effect | | |
|--|---|----------------------------|--------|------|
| | | Short | Medium | Long |
| Extent of remaining landbank | | | | |
| To what extent does the proposed cluster minimise impacts on existing landbanks? i.e. contribute to landbanks through reserves <i>(this may be an issue related to silica sand only)</i> | This cluster has no applicable silica sand deposits. Therefore no assessment is being made. | | | |
| Conservation and protection of water resources | | | | |
| To what extent are water resources used or impacted upon for the extraction of the aggregate? | A number of the sites in this cluster are on a floodplain. Parts of sites MD 1, 27, 36, 40 and 45 are within Flood Zone 3 (High Risk). Sites MD 1, 5, 27, 40, and 41 are within internal drainage board areas. Climate change predictions identify that flooding may become more common as global temperatures rise. However restoration opportunities could include schemes to store floodwater thus reducing future flooding. There are uncertainties about the nature of the impact and further investigation is required. | O | O | G |
| Waste management | | | | |
| How much waste is likely to be produced per tonne of aggregate? <i>(this may be an issue related to silica sand only)</i> | There is no information from the sites appraisal on this topic, therefore no clear cluster assessment can be made. | | | |
| Other planning considerations | | | | |
| To what extent are resource blocks affected by other constraints e.g. CAA Guidance CAP680? | The school in the north of Biggleswade is less than 1 km from sites MD 40 and 41. The impacts to the schools are potential nuisance from quarry operations such as noise and severance issues caused by road transport. There are existing minerals permissions in the south of the cluster. Four of the sites are within an airfield safeguarding zone for RAF Henlow. This designation means that water based restoration in this specific part of the cluster is unlikely to be permitted. | O | O | G |

Cluster 3

Sites: 13, 14, 21, 43.

SA Objective and Criteria

Summary of impact (including nature and spatial extent of the impact, probability, duration, frequency and reversibility).

Significance of the effect

Short Medium Long

| | | Short | Medium | Long |
|--|--|-------|--------|------|
| Biodiversity and earth science | | | | |
| To what extent are land based resource blocks constrained by designated areas e.g. National Nature Reserves, SSSIs, and SACs etc.? | Two of the four sites have been identified by local people as having locally significant plant and wildlife, some of which is protected, including badgers. It is assumed that care would need to be taken to preserve the local wildlife and plant value of existing sites and prevent damage to a local NNRs and country parks. | O | O | G |
| To what extent does the proposed cluster threaten the qualities of designated areas? | | | | |
| Archaeology and cultural heritage | | | | |
| To what extent are land based resource blocks constrained by designated sites or Conservation Areas? | Some of the sites are adjacent to Areas of Archaeological Interest. It is not certain from the individual site assessments as to the risk of negative impacts to archaeological and cultural heritage. More research would be required to make a combined assessment. | O | O | O |
| To what extent does the proposed cluster threaten the qualities of designated areas? | | | | |
| Landscape | | | | |
| To what extent are land based resource blocks constrained by designated areas e.g. National Parks etc.? | The entire cluster is within the Greenbelt. Whilst this does not preclude minerals development it does mean that restoration would have to ensure that the open nature of the green belt is restored. The cluster is not within an Area of Great Landscape Value but at least 3 of the sites have had local concerns expressed about loss of visual amenity. Many of the sites could be visible from a distance whilst the sites are active. | O | O | O |
| To what extent does the proposed cluster threaten the qualities of designated areas? | | | | |
| Land take | | | | |
| To what extent do land based resource blocks conflict with areas of best and most versatile agricultural land? | There is no Class 1, 2 or 3 Agricultural land identified within the Cluster so the best agricultural land would not be negatively impacted. To restore sites as part of Leighton Buzzards "green infrastructure" a planned approach would be required to maximise ecological and human health benefits. | G | G | G |
| To what extent do land based resource blocks help achieve the objectives of the wider development framework (i.e. | | | | |

Cluster 3

Sites: 13, 14, 21, 43.

| SA Objective and Criteria | Summary of impact (including nature and spatial extent of the impact, probability, duration, frequency and reversibility). | Significance of the effect | | |
|---|---|----------------------------|--------|------|
| | | Short | Medium | Long |
| contribution to amenity, landscape, biodiversity objectives through restoration). | | | | |
| Human health and amenity | | | | |
| What level of nuisance or effect on quality of life or human health (for both existing or planned residential areas) is likely to occur as a result of the proposed cluster? | If the Cluster was developed there would in the short to medium term be additional negative impacts to the village Heath & Reach which is virtually surrounded by existing quarry activities. There is risk that future restoration of the quarry sites between Leighton Buzzard and the village of Billington will be used for housing thus joining the two settlements. A small number of individual properties would also be significantly negatively impacted. The long term impact is uncertain. | R | R | O |
| Transportation | | | | |
| Which mode of transport (rail, road or water) is most likely to be used in the transportation of the aggregate? Is the cluster near to the strategic highway network? | Road traffic is the most likely transportation option for the minerals sites the quarry traffic would diminish once the sites had been completed. In the cluster though there is a potential opportunity to explore using a private railway to transport goods from MD14 through Leighton Buzzard to the South of the town reducing the potential traffic through Leighton Buzzard and local villages. The mainline rail route is within 3.5 km or less of all the Cluster sites but there are no loading facilities available for aggregates Two sites are crossed with a footpath/bridleway and two sites have footpaths on the boundary. An overhead powerline crosses MD13 and is on the Boundary of MD21. | R | R | G |
| Extent of remaining landbank | | | | |
| To what extent does the proposed cluster minimise impacts on existing landbanks? i.e. contribute to landbanks through reserves (this may be an issue related to silica sand only) | Cluster 3 could provide a significant source of Silica sand for the landbank. | G | G | G |
| Conservation and protection of water resources | | | | |

Cluster 3

Sites: 13, 14, 21, 43.

SA Objective and Criteria

Summary of impact (including nature and spatial extent of the impact, probability, duration, frequency and reversibility).

Significance of the effect

| | | Short | Medium | Long |
|---|--|-------|--------|------|
| To what extent are water resources used or impacted upon for the extraction of the aggregate? | The Cluster is not on the floodplain though it is located on the boundary of MD21. 75% of the sites are on the edge of Internal Drainage board areas Cluster 3 is located in a nitrate vulnerable zone and there are uncertainties of the impact of the cluster on the local floodplain and the local pumping station at Sandhouse, further investigations are required. | R | R | O |
| Waste management | | | | |
| How much waste is likely to be produced per tonne of aggregate? <i>(this may be an issue related to silica sand only)</i> | There is no information from the sites appraisal on this topic; therefore no clear cluster assessment can be made. | | | |
| Other planning considerations | | | | |
| To what extent are resource blocks affected by other constraints e.g. CAA Guidance CAP680? | The School at Heath & Reach and Schools in North Leighton Buzzard are within less than 1Km of MD43, There are existing permissions to the North and South of Leighton Buzzard. The impacts to the schools are potential nuisance from quarry operations such as noise and severance issues caused by road transport. | O | O | G |

| Cluster 4 Sites: 18, 19, 37, 46, 48. | | | | |
|--|--|----------------------------|--------|------|
| SA Objective and Criteria | Summary of impact (including nature and spatial extent of the impact, probability, duration, frequency and reversibility). | Significance of the effect | | |
| | | Short | Medium | Long |
| Biodiversity and earth science | | | | |
| To what extent are land based resource blocks constrained by designated areas e.g. National Nature Reserves, SSSIs, and SACs etc.? To what extent does the proposed cluster threaten the qualities of designated areas? | Cluster 4 sites are located along the River Great Ouse upstream of Bedford. The closest SSSI to the cluster is on the Boundary of MD37 with another SSSI within 1 km of MD46. The Closest NNR is 1.5 km from MD 46. Two of the 5 sites have significant objections from the County Ecologist and English Nature due to their closeness to sensitive SSSI sites (MD46 and 37). Other sites also have potential wetland habitat that would need careful management. However there are opportunities for restoration of sites into wetland habitat during phased working or after site work completion. | R | R | O |
| Archaeology and cultural heritage | | | | |
| To what extent are land based resource blocks constrained by designated sites or Conservation Areas? To what extent does the proposed cluster threaten the qualities of designated areas? | Around 50% of the cluster sites are within an Area of Archaeological Interest apart from one ancient monument on the boundary of MD46. There is little information on the overall Archaeological or cultural significance of the cluster, more work for each individual site would be needed to identify this. | O | O | O |
| Landscape | | | | |
| To what extent are land based resource blocks constrained by designated areas e.g. National Parks etc.? To what extent does the proposed cluster threaten the qualities of designated areas? | All of cluster 4 is in an Area of Great Landscape Value apart from MD19 which is adjacent to the zone on the sites northern boundary. The landscape characteristic for the cluster is landscape character type 3: Limestone river valley with open water, with a strong overall quality. The workings from cluster 4 sites could be visible from a large area but this would be reversible at the end of mineral extraction. | R | R | O |
| Land take | | | | |
| To what extent do land based resource blocks conflict with areas of best and most versatile agricultural land? | About 30% of the cluster 4 sites are identified as being on Agricultural Land Value 1 as identified by DEFRA (part or all of the sites downstream from Radwell). This means that if the site was restored it may not be possible to return sites to this | R | R | R |

Cluster 4
Sites: 18, 19, 37, 46, 48.

| SA Objective and Criteria | Summary of impact (including nature and spatial extent of the impact, probability, duration, frequency and reversibility). | Significance of the effect | | |
|---|--|----------------------------|--------|------|
| | | Short | Medium | Long |
| To what extent do land based resource blocks help achieve the objectives of the wider development framework (i.e. contribution to amenity, landscape, biodiversity objectives through restoration). | high quality of agricultural land or if these sites were not restored for agricultural use the agricultural amenity of this land would be completely lost which may happen due to changes in landfill regulations See www.gpa.org/pdf/inertfull.pdf on inert wastes. | R | R | R |
| Human health and amenity | | | | |
| What level of nuisance or effect on quality of life or human health (for both existing or planned residential areas) is likely to occur as a result of the proposed cluster? | Cluster 4 is located in a rural area to the North West of Bedford, the villages most likely to be negatively impacted by minerals developments are Oakley, Harrold, Carlton, Odell and Felmersham, Stevington, and Bromham. These are likely to be negatively impacted by nuisance issues mainly caused by vehicle movements to the sites. | R | R | G |
| Transportation | | | | |
| Which mode of transport (rail, road or water) is most likely to be used in the transportation of the aggregate? Is the cluster near to the strategic highway network? | Road transport is the most likely form of transportation. The A6 is the closest strategic road route and is located to the East of the cluster on a North South orientation however all of the sites would need to use secondary roads to reach a strategic road. This would have a negative impact on local villages as it is not possible to completely route LGV vehicles away from village roads. MD 18 and 46 are close to a mainline railway however there is no existing loading or unloading facilities for aggregates near the cluster. The River Great Ouse is not navigable in the area of the cluster due to a number of weirs. A public footpath crosses a cluster 4 site and four footpaths are on site boundaries. | R | R | G |
| Extent of remaining landbank | | | | |
| To what extent does the proposed cluster minimise impacts on existing landbanks? i.e. contribute to landbanks through reserves (<i>this may be an issue related to silica sand only</i>) | This cluster has no applicable silica sand deposits. Therefore no assessment is being made. | C | C | C |
| Conservation and protection of water resources | | | | |
| To what extent are water resources used or impacted upon for | All of cluster 4 apart from MD19 is within the floodplain leading to a significant risk | R | R | G |

Cluster 4
Sites: 18, 19, 37, 46, 48.

| SA Objective and Criteria | Summary of impact (including nature and spatial extent of the impact, probability, duration, frequency and reversibility). | Significance of the effect | | |
|---|---|----------------------------|--------|------|
| | | Short | Medium | Long |
| the extraction of the aggregate? | that during flood events part or the majority of minerals production would cease. Climate change predictions identify that flooding may become more common as global temperatures rise. However restoration opportunities could include schemes to store floodwater thus reducing future flooding lower down the River Great Ouse or to provide additional water to the river in drought conditions. The cluster also lies within a Nitrate Vulnerable Zone. | | | |
| Waste management | | | | |
| How much waste is likely to be produced per tonne of aggregate? <i>(this may be an issue related to silica sand only)</i> | There is no information from the sites appraisal on this topic; therefore no clear cluster assessment can be made. | | | |
| Other planning considerations | | | | |
| To what extent are resource blocks affected by other constraints e.g. CAA Guidance CAP680? | Two Schools are close to cluster 4 mineral sites at the villages of Harrold and Milton Ernest. The impacts to the schools are potential nuisance from quarry operations such as noise and severance issues caused by road transport. One of the sites MD48 has the northern 50% of the site in an airport safeguarding zone. This designation means that water based restoration in this specific part of the cluster is unlikely to be permitted. There are many old minerals sites along this stretch of river (many old flooded pits) and there are several existing minerals permissions following the line of the River Great Ouse adjacent to the proposed sites. | O | O | G |