

**GREATER MANCHESTER MINERALS DPD:  
SUBMISSION**

SUSTAINABILITY APPRAISAL APPENDICES

November 2011

## **A1. AIM OF THE MINERALS PLAN**

Aim of the Minerals Plan									
SA Objective	Timescale			Nature of Effect				Comments	Mitigation
	0 – 5 years	5 – 10 years	10+ years	Certainty	Scale	Permanence	Secondary, cumulative, synergistic		
<b>Economic</b>									
1. To exploit the growth potential of business sectors; increasing the usage and quality of recycled/secondary products.	++	++	++	High	GM wide	Long term	Increased job opportunities in the minerals sector.	The overall aim will encourage the development of markets for secondary / recycled products but will also lead to mineral use being managed so as to facilitate economic growth.	
2. To encourage sustainable economic growth and assist in reducing the disparities of sub-regional economic performance	+	+	+	Low	GM wide	Long term	Increased job opportunities in the minerals sector.	The aim would promote the re-use and recycling of existing materials but would also support economic growth through the provision of adequate mineral reserves. Nevertheless, as minerals can only be worked where they are found, it is uncertain whether any employment opportunities created would be accessible from the more deprived parts of the sub-region.	
3. To develop and market Greater Manchester's image.	+	+	+	Medium	GM wide	Long term		The aim would support the sub-objective of preserving high quality built, natural and historic environments by ensuring that the environment is protected from the impacts of minerals development and by minimising the need for new primary extraction through facilitating the better use of recycled / secondary aggregates.	
4. To develop and maintain a healthy labour market.	+	+	+	Medium	GM wide	Long term	Reduced deprivation	Providing a steady and sustainable supply of minerals to support Greater Manchester's economic development needs would lead to the creation of a number of employment opportunities.	

<b>Social</b>										
5. To reduce the need to travel, improve choice and use of sustainable transport modes.	+	+	+	Low	GM wide	Long term	Reduced congestion and carbon emissions. Improved air quality	Facilitating the use of recycled aggregates and secondary mineral products will reduce the sub-region's reliance on importing new minerals, which would help minimise the transportation of minerals. It is however recognised that mineral resources are not always found where they are accessible by non-road modes of transport. The aim may not therefore increase the use of sustainable transport modes. This reduces the level of certainty of the impact on this objective.		
6. To improve physical health and mental health and reduce health inequalities.	+	+	+	Medium	GM wide	Long term		Both primary extraction and the recycling of aggregates have the potential to impact on health through, for example, dust and noise. However, the aim will ensure that communities are protected from the impacts of minerals development.	The aim has been appraised in two stages. Following the first appraisal, the wording of the aim has been strengthened in relation to protecting local communities from the impacts of minerals developments.	
7. To improve access to good quality affordable and resource efficient housing.	+	+	+	Medium	GM wide	Long term	Positive impact on quality of life.	The aim will ensure there is a steady and sustainable supply of minerals to support the ambitious growth strategy for Greater Manchester.		
8. To enable groups and communities to contribute to decision-making, and to reduce social exclusion.	0	0	0	High	N/A	N/A		Unlikely to have any significant effects.		
9. To improve access to and use of basic goods, services and amenities for all groups.	0	0	0	High	N/A	N/A		Unlikely to have any significant effects.		

Environmental									
10. To protect, enhance, manage and restore where appropriate, the rich diversity of cultural, built environment and archaeological assets and their settings.	+	+	+	Medium	GM wide	Long term	Improved image of the sub-region	The primary extraction of minerals has the potential to impact on the significance of heritage assets. However, the aim seeks to reduce the need for primary extraction by facilitating the greater use of recycled aggregates and secondary mineral products. It now also states that it will ensure the environment will be protected from the impacts of minerals development.	The aim has been appraised in two stages. Following the first appraisal, the wording of the aim has been strengthened in relation to protecting the environment from the impacts of minerals developments.
11. To protect, enhance, manage and restore where appropriate biodiversity, protected species, habitats and sites of geological importance.	+	+	+	Medium	GM wide	Long term	Improved image of the sub-region	The primary extraction of minerals has the potential to impact on biodiversity, protected species and sites of geological importance. Nevertheless, the aim seeks to reduce the need for primary extraction by facilitating the greater use of recycled aggregates and secondary mineral products. It now also states that it will ensure the environment will be protected from the impacts of minerals development.	The aim has been appraised in two stages. Following the first appraisal, the wording of the aim has been strengthened in relation to protecting the environment from the impacts of minerals developments.
12. To protect and improve landscape and townscape character and accessibility.	+	+	+	Medium	GM wide	Long term	Improved image of the sub-region	The primary extraction of minerals has the potential to impact on landscape and townscape character and accessibility. Nevertheless, the aim seeks to reduce the need for primary extraction by facilitating the greater use of recycled aggregates and secondary mineral products. It now also states that it will ensure the environment will be protected from the impacts of minerals development.	The aim has been appraised in two stages. Following the first appraisal, the wording of the aim has been strengthened in relation to protecting the environment from the impacts of minerals developments.

13. To protect and improve local environmental quality and reduce crime.	+	+	+	Medium	Local	Long term	Improved quality of life	The aim states that the spatial planning framework will ensure that the environment will be protected from the impacts of minerals development. This should ensure that local environmental quality is protected.	The aim has been appraised in two stages. Following the first appraisal, the wording of the aim has been strengthened in relation to protecting the environment from the impacts of minerals developments.
14. To protect and improve the quality of controlled waters.	+	+	+	Medium	GM wide	Long term	Secondary impacts on biodiversity.	The aim states that the spatial planning framework will ensure that the environment is protected from the impacts of minerals development. This should ensure that the quality of controlled waters is protected.	The aim has been appraised in two stages. Following the first appraisal, the wording of the aim has been strengthened in relation to protecting the environment from the impacts of minerals developments.
15. To protect and improve air quality.	+	+	+	Medium	GM wide	Long term	Secondary impacts on health, particularly among those who suffer from respiratory illnesses	Both primary extraction and the recycling of aggregates have the potential to impact on air quality through, for example dust emissions. Nevertheless, environmental regulations and planning conditions have the capability to mitigate any adverse impact. In addition, the aim will ensure that the environment is protected from the impacts of minerals development. Furthermore, facilitating the use of recycled aggregates and secondary mineral products will reduce the sub-region's reliance on importing new minerals, which would help minimise the transportation of minerals and thereby reduce the level of emissions associated with the transportation of minerals.	The aim has been appraised in two stages. Following the first appraisal, the wording of the aim has been strengthened in relation to protecting the environment from the impacts of minerals developments.

16. To restore and protect land and soil and to manage contaminated and potentially unstable land.	+	+	+	Medium	GM wide	Long term	Improved image of the sub-region	Facilitating the better use of recycled aggregates and secondary mineral products will minimise the need for new primary extraction which would help protect land and soil resources from minerals development.	
17. To mitigate and adapt to climate change.	+	+	+	Low	GM wide	Long term	Reduced secondary impacts associated with climate change, such as increased flood risk.	<p>Minerals extraction and processing activities would both use energy and result in increased CO2 emissions. The provision of aggregates is however required in order to achieve other sustainability objectives.</p> <p>Making better use of recycled aggregates and secondary mineral products will reduce the sub-region's reliance on importing new minerals, which would help minimise the transportation of minerals. The aim will thereby help minimise carbon emissions.</p> <p>It is however recognised that mineral resources are not always found where they are accessible by non-road modes of transport. The aim may not therefore increase the use of sustainable transport modes. This reduces the level of certainty of the impact on this objective.</p>	

18. To minimise the risk of flooding and increase the use of SUDS.	+	+	+	Medium	GM wide	Long term		The aim states that the spatial planning framework will ensure that the environment is protected from the impacts of minerals development. This should ensure that minerals developments do not increase the risk of flooding.	The aim has been appraised in two stages. Following the first appraisal, the wording of the aim has been strengthened in relation to protecting the environment from the impacts of minerals developments.
19. To ensure the prudent use of natural resources and the sustainable management and safeguarding of existing resources.	++	++	++	High	GM wide	Long term	Reduced requirement to identify additional waste landfill sites for unwanted aggregates.	Primary aggregates are a finite resource. The aim strives to reduce reliance on primary minerals by facilitating the better use of recycled aggregates and secondary mineral products. It will therefore support the objective of using natural resources prudently and reduce the amount of inert waste produced.	
20. To minimise the requirement for energy use, promote efficient use and increase the use of energy from renewable resources.	+	+	+	Medium	GM wide	Long term	Positive secondary impacts on congestion, carbon emissions and air quality.	Making better use of recycled aggregates and secondary mineral products will reduce the need to consume energy importing new minerals into Greater Manchester.	
<b>Sustainability Summary</b>	<p>The Aim has the potential to have a positive impact on a wide range of sustainability objectives. In particular, by facilitating the use of recycled aggregates and secondary mineral products and delivering a steady supply of minerals to meet Greater Manchester's needs, the Aim would have a significant positive impact on the objectives relating to exploiting the growth potential of business sectors; restoring and protecting land and soil; and ensuring the prudent use of natural resources and some positive impact on the objective of encouraging sustainable economic growth.</p> <p>By minimising the need for new primary extraction, the Aim is likely to have some positive effect on the sub-region's labour market; the image of Greater Manchester; reducing the need to travel; mitigating climate change and protecting air quality. The strengthening of the reference to ensuring the environment and community are protected from the impacts of minerals development should also ensure that the Aim has a positive impact on the objectives relating to physical and mental health; protecting biodiversity, protected species, habitats and sites of geological importance; protecting landscape and townscape character; protecting local environmental quality; protecting the quality of controlled waters; and minimising the risk of flooding.</p> <p>There are no anticipated negative or uncertain effects on the sustainability objectives.</p>								

**Key for effects**

++ major positive;    + minor positive;    0 neutral;    – minor negative;    – – major negative;    ? uncertain

## A2. POLICIES

Policy 1: Key Planning and Environmental Criteria									
SA Objective	Timescale			Nature of Effect				Comments	Mitigation
	0 – 5 years	5 – 10 years	10+ years	Certainty	Scale	Permanence	Secondary, cumulative, synergistic		
<b>Economic</b>									
1. To exploit the growth potential of business sectors; increasing the usage and quality of recycled/secondary products.	?	?	?	Low	GM wide	Long term		The policy will restrict the areas within Greater Manchester where minerals can be worked. Given that minerals can only be worked where they are found, the policy could lead to some mineral reserves not being worked. The policy would therefore have an uncertain impact on the sub-objective of promoting growth in the minerals sector. It may however have a positive impact on the sub-objective of increasing mineral re-use and recycling.	It is recognised that the approach set out in the policy is necessary to ensure mineral workings and infrastructure contribute positively to sustainable development. As such, no mitigation measures are recommended.
2. To encourage sustainable economic growth and assist in reducing the disparities of sub-regional economic performance	?	?	?	Low	GM wide	Long term		The policy will restrict the areas within Greater Manchester where minerals can be worked. Given that minerals can only be worked where they are found, the policy could lead to some mineral reserves not being worked. As a result, the policy could potentially have a negative impact on the sub-objective of encouraging sustainable economic growth through provision of adequate mineral reserves.	It is recognised that the approach set out in the policy is necessary to ensure mineral workings and infrastructure contribute positively to sustainable development. As such, no mitigation measures are recommended.
3. To develop and market Greater Manchester's image.	+	+	+	High	GM wide	Long term	Improved quality of life and perceptions of the area.	The policy would prevent minerals developments that would have an unacceptable impact on a range of criteria that contribute positively to the sub-region's image.	

4. To develop and maintain a healthy labour market.	?	?	?	Low	GM wide	Long term		The policy will restrict the areas within Greater Manchester where minerals can be worked. Given that minerals can only be worked where they are found, the policy could lead to some mineral reserves not being worked. As a result, the policy could potentially restrict employment opportunities.	It is recognised that the approach set out in the policy is necessary to ensure mineral workings and infrastructure contribute positively to sustainable development. As such, no mitigation measures are recommended.
<b>Social</b>									
5. To reduce the need to travel, improve choice and use of sustainable transport modes.	?	?	?	Low	GM wide	Long term	Secondary impacts associated with climate change.	The policy will restrict the areas within Greater Manchester where minerals can be worked. Given that minerals can only be worked where they are found, the policy could lead to some mineral reserves not being worked. As a result, the policy may increase the need for minerals to be imported into the sub-region.	It is recognised that the approach set out in the policy is necessary to ensure mineral workings and infrastructure contribute positively to sustainable development. As such, no mitigation measures are recommended.
6. To improve physical health and mental health and reduce health inequalities.	+	+	+	High	GM wide	Long term	Improved quality of life	The policy states that proposals for minerals working or the provision of minerals infrastructure will not be permitted where it would have an unacceptable impact on amenity.	
7. To improve access to good quality affordable and resource efficient housing.	0	0	0	High	N/A	N/A		Unlikely to have any significant effects.	
8. To enable groups and communities to contribute to decision-making, and to reduce social exclusion.	0	0	0	High	N/A	N/A		Unlikely to have any significant effects.	
9. To improve access to and use of basic goods, services and amenities for all groups.	0	0	0	High	N/A	N/A		Unlikely to have any significant effects.	

Environmental									
10. To protect, enhance, manage and restore where appropriate, the rich diversity of cultural, built environment and archaeological assets and their settings.	+	+	+	High	GM wide	Long term	Secondary impacts on the image of the sub-region	The policy states that proposals for minerals working or the provision of minerals infrastructure will not be permitted where it would have an unacceptable impact on the historic environment and built heritage that could not be mitigated. As such, the policy should ensure that the cultural, built environment and archaeological assets are protected from minerals developments.	
11. To protect, enhance, manage and restore where appropriate biodiversity, protected species, habitats and sites of geological importance.	+	+	+	High	GM wide	Long term	Improved image of the sub-region	The policy states that proposals for minerals working or the provision of minerals infrastructure will not be permitted where it would have an unacceptable impact on biological and geological conservation that could not be mitigated. This should ensure that biodiversity, protected species, habitats and sites of geological importance are protected from the impacts associated with minerals developments.	

12. To protect and improve landscape and townscape character and accessibility.	+	+	+	High	GM wide	Long term	Improved image of the sub-region	The policy states that proposals for minerals working or the provision of minerals infrastructure will not be permitted where it would have an unacceptable impact on landscape and visual intrusion that could not be mitigated. It also states that proposals for minerals working or the provision of minerals infrastructure will not be permitted where it would have an unacceptable impact on access which should ensure that proposals do not have an unacceptable impact on the accessibility of the landscape.	
13. To protect and improve local environmental quality and reduce crime.	+	+	+	High	GM wide	Long term	Improved quality of life and perceptions of the area.	The policy would prevent minerals developments that would have an unacceptable impact on a range of criteria that contribute to local environmental quality.	
14. To protect and improve the quality of controlled waters.	+	+	+	High	GM wide	Long term	Positive impact on biodiversity	The policy states that proposals for minerals working or the provision of minerals infrastructure will not be permitted where it would have an unacceptable impact on the protection of controlled waters that could not be mitigated.	

15. To protect and improve air quality.	+	+	+	Low	GM wide	Long term	Positive impact on health, particularly amongst those who suffer from respiratory illnesses.	The policy states that proposals for minerals working or the provision of minerals infrastructure will not be permitted where it would have an unacceptable impact in terms of dust emissions that could not be mitigated. The list of issues to be considered does not however make reference to air quality and, as a result, the certainty of this impact is considered to be low.	Include air quality in the list of criteria to be taken into consideration.
16. To restore and protect land and soil and to manage contaminated and potentially unstable land.	+	+	+	High	GM wide	Long term	Improved image of the sub-region	The policy states that proposals for minerals working or the provision of minerals infrastructure will not be permitted where it would have an unacceptable impact on land instability and the best and most versatile agricultural land.	The publication version of the Minerals Plan has been appraised in two stages. During the first stage of this appraisal it was noted that the list of issues to be considered did not include agricultural land. A reference to this has now been incorporated.
17. To mitigate and adapt to climate change.	?	?	?	Low	GM wide	Long term	Secondary impacts associated with climate change.	The policy will restrict the areas within Greater Manchester where minerals can be worked. Given that minerals can only be worked where they are found, the policy could lead to some mineral reserves not being worked. As a result, the policy may increase the need for minerals to be imported into the sub-region, which could increase greenhouse gas emissions associated with the transportation of minerals.	It is recognised that the approach set out in the policy is necessary to ensure mineral workings and infrastructure contribute positively to sustainable development. As such, no mitigation measures are recommended.

18. To minimise the risk of flooding and increase the use of SUDS.	+	+	+	High	GM wide	Long term		The policy states that proposals for minerals working or the provision of minerals infrastructure will not be permitted where it would have an unacceptable impact on flood risk management that could not be mitigated.	
19. To ensure the prudent use of natural resources and the sustainable management and safeguarding of existing resources.	?	?	?	Low	GM wide	Long term		The policy will restrict the areas within Greater Manchester where minerals can be worked. Given that minerals can only be worked where they are found, the policy could lead to some mineral reserves not being worked.	
20. To minimise the requirement for energy use, promote efficient use and increase the use of energy from renewable resources.	?	?	?	Low	GM wide	Long term	Secondary impacts associated with climate change.	The policy will restrict the areas within Greater Manchester where minerals can be worked. Given that minerals can only be worked where they are found, the policy could lead to some mineral reserves not being worked. As a result, the policy may increase the need for minerals to be imported into the sub-region, which could increase energy use associated with the transportation of minerals.	It is recognised that the approach set out in the policy is necessary to ensure mineral workings and infrastructure contribute positively to sustainable development. As such, no mitigation measures are recommended.

<b>Sustainability Summary</b>	<p>The policy relating to Key Planning and Environmental Criteria would have a positive impact on a range of sustainability objectives. In particular, the policy would ensure that proposals minerals workings and minerals infrastructure do not have an unacceptable impact on a wide range of assets. As such, it is considered that the policy would have a positive impact on the objectives relating to physical and mental health; cultural, built heritage; biodiversity and geodiversity; townscapes and landscapes; local environmental quality; water quality; air quality; land and soil; flood risk; and developing Greater Manchester's image. It is however noted that the list of criteria does not make a specific reference to air quality and it is recommended that this is added to the list of considerations included within the policy.</p> <p>There are no negative on the sustainability objectives. The policy would however have an uncertain impact on a wide range of objectives. By protecting a wide range of natural and historic environment assets the policy would restrict the areas within Greater Manchester where minerals can be worked. Given that minerals can only be worked where they are found, the policy could therefore lead to some mineral reserves not being worked. As a result, it is considered that the policy would have an uncertain impact on the objectives relating to exploiting the growth potential of business sectors; encouraging sustainable economic growth; developing and maintaining a healthy labour market; reducing the need to travel; mitigating climate change; ensuring the prudent use of natural resources; and minimising the requirement for energy use. It is however recognised that the approach set out in the policy is necessary to ensure mineral workings and minerals infrastructure contribute positively to sustainable development. As such, no mitigation measures are recommended to address this.</p>
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<b>Key for effects</b>					
++ major positive;	+ minor positive;	0 neutral;	– minor negative;	– – major negative;	? uncertain

Policy 2: Primary Extraction of Minerals - Aggregates									
SA Objective	Timescale			Nature of Effect				Comments	Mitigation
	0 – 5 years	5 – 10 years	10+ years	Certainty	Scale	Permanence	Secondary, cumulative, synergistic		
<b>Economic</b>									
1. To exploit the growth potential of business sectors; increasing the usage and quality of recycled/secondary products.	+	+	+	Low	GM wide	Long term		The policy would provide a mechanism to support applications for minerals extraction where there is a demonstrable need for the mineral and an adequate reserve of the mineral. The policy would therefore promote growth in the minerals sector. Nevertheless, the policy would not necessarily increase the usage of recycled/secondary products and therefore there is only limited certainty that the policy would have a positive impact on this objective.	
2. To encourage sustainable economic growth and assist in reducing the disparities of sub-regional economic performance	+	+	+	Medium	GM wide	Long term		The policy would provide a mechanism to support applications for minerals extraction where there is a demonstrable need for the mineral. This would encourage sustainable economic growth through provision of adequate mineral reserves.	

3. To develop and market Greater Manchester's image.	+	+	+	Medium	GM wide	Long term	Positive impact on perceptions of the sub region.	The policy specifies that the extraction and/or processing of sand, gravel or sandstone/gritstone, irrespective of whether it is within an Area of Search, will only be permitted where it is in accordance with the Key Planning and Environmental Criteria set out in Policy 1. This will support the preservation and/or enhancement of high quality built, natural and historic environments.	
4. To develop and maintain a healthy labour market.	+	+	+	Medium	GM wide	Long term		The policy would provide a mechanism to support applications for minerals extraction where there is a demonstrable need for the mineral. This would support the creation of employment opportunities in the minerals sector.	
<b>Social</b>									
5. To reduce the need to travel, improve choice and use of sustainable transport modes.	+	+	+	Low	GM Wide	Medium term	Reduced congestion and associated secondary impacts on air quality and climate change.	The policy provides a mechanism to enable new minerals extraction in Greater Manchester where an adequate mineral reserve is identified and there is a demonstrated need for the mineral. This could reduce the need to import sand, gravel or sandstone/gritstone from outside the sub-region. The level of certainty is however reduced by the fact that minerals can only be worked where they are found and that they may not be found in locations that are accessible by non-road modes of transport.	

6. To improve physical health and mental health and reduce health inequalities.	+	+	+	High	GM wide	Long term	Improved quality of life	The policy specifies that the extraction and/or processing of sand, gravel or sandstone/gritstone, irrespective of whether it is within an Area of Search, will only be permitted where it is in accordance with the Key Planning and Environmental Criteria set out in Policy 1. This is likely to ensure that minerals developments do not have an unacceptable impact on local communities through, for example, noise, dust, vibrations or odours.	
7. To improve access to good quality affordable and resource efficient housing.	+	+	+	Medium	GM wide	Long term	Improved quality of life	Allocations for development, including housing, made in Development Plans would be identified as a constraint when identifying Areas of Search. It is therefore unlikely that a potential housing site would be 'lost' to minerals development. In addition, the provision of aggregates is necessary for the provision of new houses.	
8. To enable groups and communities to contribute to decision-making, and to reduce social exclusion.	0	0	0	High	N/A	N/A		Unlikely to have any significant effects.	
9. To improve access to and use of basic goods, services and amenities for all groups.	0	0	0	High	N/A	N/A		Unlikely to have any significant effects.	

Environmental									
10. To protect, enhance, manage and restore where appropriate, the rich diversity of cultural, built environment and archaeological assets and their settings.	++	++	++	Medium	GM wide	Long term	Positive impact on perceptions of the sub region.	The policy specifies that the extraction and/or processing of sand, gravel or sandstone/gritstone will only be permitted where the proposal would be in accordance with the Key Planning and Environmental Criteria set out in Policy 1. These include the impact of the proposal on the historic environment and built heritage. In addition, it is noted that National Trust sites, Conservation Areas and Listed Buildings have all been excluded from the Areas of Search.	
11. To protect, enhance, manage and restore where appropriate biodiversity, protected species, habitats and sites of geological importance.	++	++	++	Medium	GM wide	Long term	Positive impact on perceptions of the sub region.	The policy specifies that the extraction and/or processing of sand, gravel or sandstone/gritstone will only be permitted where the proposal would be in accordance with the Key Planning and Environmental Criteria set out in Policy 1. These include the impact of the proposal on the historic biological and geological conservation. In addition, sites designated for their nature conservation value (including SPAs, SACs, SSSIs, SBIs and Local Nature Reserves) are listed as absolute constraints for the Areas of Search for sand, gravel or sandstone/gritstone.	

12. To protect and improve landscape and townscape character and accessibility.	+ +	+ +	+ +	Medium	GM wide	Long term	Positive impact on perceptions of the sub region.	The policy specifies that the extraction and/or processing of sand, gravel or sandstone/gritstone will only be permitted where the proposal would be in accordance with the Key Planning and Environmental Criteria set out in Policy 1. These criteria include the impact of the proposal on landscape and visual intrusion. Furthermore, the National Park, country parks and the urban area would all be excluded from the Areas of Search, which increases the likelihood of these areas being protected from minerals development. It is however recognised that minerals extraction has the potential to reduce landscape accessibility if it leads to the extinguishment of public rights of way.	Ensure proposals for minerals working or the provision of minerals infrastructure are required to retain existing local access routes or amend them to maintain a similar level of access.
13. To protect and improve local environmental quality and reduce crime.	+	+	+	Medium	GM wide	Long term	Positive impact on perceptions of the sub region.	The policy specifies that the extraction and/or processing of sand, gravel or sandstone/gritstone will only be permitted where the proposal would be in accordance with the Key Planning and Environmental Criteria set out in Policy 1. This should ensure that the factors that contribute to local environmental quality are protected.	

14. To protect and improve the quality of controlled waters.	+	+	+	Medium	GM wide	Long term	Positive impact on biodiversity and perceptions of the sub region.	The policy specifies that the extraction and/or processing of sand, gravel or sandstone/gritstone will only be permitted where the proposal would be in accordance with the Key Planning and Environmental Criteria set out in Policy 1. These criteria include the impact of the proposal on the quality of controlled waters. Specific references are also made in the supporting text to ensuring minerals developments do not adversely affect a significant water resource. River valleys are also identified as a location where the MPA would prefer mineral working not to take place.	
15. To protect and improve air quality.	+	+	+	Medium	GM wide	Long term	Positive impact on health, particularly amongst those who suffer from respiratory illnesses.	The policy specifies that the extraction and/or processing of sand, gravel or sandstone/gritstone will only be permitted where the proposal would be in accordance with the Key Planning and Environmental Criteria set out in Policy 1. This should ensure that the air quality is protected.	

16. To restore and protect land and soil and to manage contaminated and potentially unstable land.	+	+	+	Medium	GM wide	Long term	Positive impact on biodiversity	Grade 1 and 2 agricultural land would be excluded from Areas of Search and areas of Grade 3a agricultural land would be identified as a location where the Minerals Planning Authority would prefer mineral working not to take place. In addition, the policy specifies that the extraction and/or processing of sand, gravel or sandstone/gritstone will only be permitted where the proposal would be in accordance with the Key Planning and Environmental Criteria set out in Policy 1. These criteria include the impact of the proposal on the best and most versatile agricultural land. The policy will therefore increase the likelihood of land resources being protected.	
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17. To mitigate and adapt to climate change.	+	+	+	Medium	GM Wide	Medium term		<p>Minerals extraction and processing activities would both use energy and result in increased CO2 emissions. The provision of aggregates is however required in order to achieve other sustainability objectives.</p> <p>Nevertheless, the policy provides a mechanism to enable new minerals extraction in Greater Manchester where an adequate mineral reserve is identified and there is a demonstrated need for the mineral. This could reduce the need to import sand, gravel or sandstone/gritstone from outside the sub-region and would reduce carbon emissions associated with the transportation of minerals.</p> <p>Climate change is likely to compound existing pressures on habitats and species. Excluding sites designated for their nature conservation value from the Areas of Search will reduce the likelihood of species being placed under additional pressure from minerals development</p>	
18. To minimise the risk of flooding and increase the use of SUDS.	+	+	+	Medium	GM wide	Long term	Positive impact on perceptions of the sub region.	The policy specifies that the extraction and/or processing of sand, gravel or sandstone/gritstone will only be permitted where the proposal would be in accordance with the Key Planning and Environmental Criteria set out in Policy 1. These criteria include the impact of the proposal on flood risk management.	

19. To ensure the prudent use of natural resources and the sustainable management and safeguarding of existing resources.	+	+	+	Low	GM Wide	Medium term		The policy provides a mechanism to enable new minerals extraction in Greater Manchester where an adequate mineral reserve is identified. This should reduce the likelihood of minerals resources being needlessly sterilised. It would not however minimise the demand for raw materials or promote the use of locally arising recycled and secondary materials. The certainty of the impact on this objective is therefore low.	
20. To minimise the requirement for energy use, promote efficient use and increase the use of energy from renewable resources.	+	+	+	Medium	GM Wide	Medium term	Reduced energy consumption	The policy provides a mechanism to enable new minerals extraction in Greater Manchester where an adequate mineral reserve is identified and there is a demonstrated need for the mineral. This could reduce the need to import sand, gravel or sandstone/gritstone from outside the sub-region and would reduce energy use associated with the transportation of minerals.	

<b>Sustainability Summary</b>	<p>Policy 2 would have a positive impact on a number of objectives. By identifying the parts of the sub-region that have the least constraints and by providing a mechanism to support applications for minerals extraction where there is a demonstrable need for the mineral, the policy would support growth in the minerals sector and thereby have a positive effect on the objectives relating to exploiting the growth potential of business sectors and promoting sustainable economic growth.</p> <p>The policy states that applications for the extraction and/or processing of sand, gravel or sandstone/gritstone will only be permitted where the proposal would be in accordance with the Key Planning and Environmental Criteria set out in Policy 1. In addition, a wide range of natural and historic environment assets would be excluded from the Areas of Search and other sensitive areas where the Minerals Planning Authority would prefer mineral working not to take place are also identified, which should help support their protection. As a result, it is anticipated that the policy would have a major positive impact on the objectives relating to cultural and built environment assets; biodiversity and sites of geological importance and landscape and townscape character, and some positive impact on the objectives relating to Greater Manchester's image; physical and mental health; access to services and amenities; climate change; restoring and protecting land; and the quality of controlled waters. Furthermore, by providing a mechanism to enable the sub-region to meet any shortfall in minerals provision, the policy will reduce the amount of minerals that need to be imported from outside Greater Manchester. Consequently, it is envisaged that the policy would also have a positive impact on the objectives relating to reducing the need to travel; climate change and energy use.</p> <p>There are no negative effects on the sustainability objectives.</p>
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<b>Key for effects</b>					
++ major positive;	+ minor positive;	0 neutral;	– minor negative;	– – major negative;	? uncertain

Policy 3: Natural Building Stone									
SA Objective	Timescale			Nature of Effect				Comments	Mitigation
	0 – 5 years	5 – 10 years	10+ years	Certainty	Scale	Permanence	Secondary, cumulative, synergistic		
<b>Economic</b>									
1. To exploit the growth potential of business sectors; increasing the usage and quality of recycled/secondary products.	+	+	+	Medium	GM wide	Long term		The policy provides a flexible approach that enables natural building stone to be extracted to meet the ad hoc nature of demand and variable nature of the resource. This should promote growth in the minerals sector.	
2. To encourage sustainable economic growth and assist in reducing the disparities of sub-regional economic performance	+	+	+	Medium	GM wide	Long term		The policy provides a flexible approach that enables natural building stone to be extracted to meet the ad hoc nature of demand and variable nature of the resource. This should encourage sustainable economic growth through provision of adequate mineral reserves.	
3. To develop and market Greater Manchester's image.	+	+	+	Low	GM Wide	Long term	Positive impact on sense of place.	The policy provides a mechanism to ensure that there is a supply of natural stone for the conservation and restoration of the historic built environment. There is however only limited certainty over the impact of the policy on this objective as the study to identify sites within the sub-region that provide stone for heritage purposes has not yet been completed. The extent to which the stone used for conservation projects is obtained from sites within the sub-region is therefore uncertain.	

4. To develop and maintain a healthy labour market.	+	+	+	Medium	GM wide	Long term		The policy provides a flexible approach that enables natural building stone to be extracted to meet the ad hoc nature of demand and variable nature of the resource. This should promote growth in the minerals sector.	
<b>Social</b>									
5. To reduce the need to travel, improve choice and use of sustainable transport modes.	+	+	+	Low	GM wide	Long term	Positive impact on air quality and carbon emissions	The policy provides a mechanism for natural building stone to be worked where there is viable mineral for extraction. It could therefore enable Greater Manchester to meet a greater proportion of its own minerals needs and minimise the need to import minerals into the sub-region. There is however only limited certainty over the impact of the policy on this objective as the study which will identify sites within Greater Manchester that provide stone for heritage purposes has not yet been completed. As a result, the extent to which the stone used for conservation projects in Greater Manchester is obtained from sites within the sub-region is presently uncertain.	

6. To improve physical health and mental health and reduce health inequalities.	+	+	+	Medium	GM wide	Medium term	Improved quality of life.	The policy specifies that proposals for the working of natural building stone will only be permitted where the working process is in accordance with the Key Planning and Environmental Criteria as set out in Policy 1, which include the impact of the proposal on amenity. The policy should therefore ensure that the extraction of natural building stone does not have a detrimental impact on the physical and mental health of local communities.	
7. To improve access to good quality affordable and resource efficient housing.	0	0	0	Medium	N/A	N/A		Unlikely to have any significant effects.	
8. To enable groups and communities to contribute to decision-making, and to reduce social exclusion.	0	0	0	High	N/A	N/A		Unlikely to have any significant effects.	
9. To improve access to and use of basic goods, services and amenities for all groups.	0	0	0	High	N/A	N/A		Unlikely to have any significant effects.	

Environmental										
10. To protect, enhance, manage and restore where appropriate, the rich diversity of cultural, built environment and archaeological assets and their settings.	+	+	+	Low	GM Wide	Long term	Improved perceptions of the area.  Positive impact on sense of place.	The policy provides a mechanism to ensure that there is a supply of natural stone for the conservation and restoration of the historic built environment. There is however only limited certainty over the impact of the policy on this objective as the study which will identify sites within Greater Manchester that provide stone for heritage purposes has not yet been completed. The extent to which the stone used for conservation projects in Greater Manchester is obtained from sites within the sub-region is therefore uncertain.		
11. To protect, enhance, manage and restore where appropriate biodiversity, protected species, habitats and sites of geological importance.	+	+	+	Medium	GM wide	Long term		The policy specifies that the working of natural building stone will only be permitted where the working process is in accordance with the Key Planning and Environmental Criteria as set out in Policy 1, which include the impact of the proposal on biological and geological conservation. The policy should therefore ensure that proposals to work natural building stone do not have an unacceptable impact on biodiversity, protected species, habitats and sites of geological importance.		

12. To protect and improve landscape and townscape character and accessibility.	+	+	+	Medium	GM wide	Long term	Improved perceptions of the sub-region.	The policy specifies that the working of natural building stone will only be permitted where the working process is in accordance with the Key Planning and Environmental Criteria as set out in Policy 1, which include the impact of the proposal on landscape and visual intrusion. The policy should therefore ensure that proposals to work natural building stone do not have an unacceptable impact on landscape and townscape character and accessibility.	
13. To protect and improve local environmental quality and reduce crime.	+	+	+	Medium	GM wide	Long term	Improved perceptions of the sub-region.	The policy specifies that the working of natural building stone will only be permitted where the working process is in accordance with the Key Planning and Environmental Criteria as set out in Policy 1, which should ensure that proposals to work natural building stone do not have an unacceptable impact on local environmental quality.	
14. To protect and improve the quality of controlled waters.	+	+	+	Medium	GM wide	Long term	Positive secondary impacts on biodiversity	The policy specifies that the working of natural building stone will only be permitted where the working process is in accordance with the Key Planning and Environmental Criteria as set out in Policy 1, which include the impact of the proposal on controlled waters. The policy should therefore ensure that the extraction of natural building stone does not have a detrimental impact on the quality of controlled waters.	

15. To protect and improve air quality.	+	+	+	Medium	GM wide	Long term	Positive secondary impacts on health	The policy specifies that the working of natural building stone will only be permitted where the working process is in accordance with the Key Planning and Environmental Criteria as set out in Policy 1, which should ensure that proposals do not have an unacceptable impact on air quality.	
16. To restore and protect land and soil and to manage contaminated and potentially unstable land.	+	+	+	Medium	GM wide	Long term		The policy specifies that the working of natural building stone will only be permitted where the working process is in accordance with the Key Planning and Environmental Criteria as set out in Policy 1, which should ensure that proposals to work natural building stone do not have an unacceptable impact on the protection of land stability and the best and most versatile agricultural land.	

17. To mitigate and adapt to climate change.	+	+	+	Low	GM wide	Long term		<p>Minerals extraction and processing activities would both use energy and result in increased CO2 emissions. The provision of aggregates is however required in order to achieve other sustainability objectives.</p> <p>Nevertheless, the policy provides a mechanism for natural building stone to be worked where there is viable mineral for extraction. It could therefore enable Greater Manchester to meet a greater proportion of its own minerals needs and minimise the need to import minerals into the sub-region. There is however only limited certainty over this impact as the study which will identify sites within Greater Manchester that provide stone for heritage purposes has not yet been completed. The extent to which the stone used for conservation projects in Greater Manchester is obtained from sites within the sub-region is therefore presently uncertain.</p>	
18. To minimise the risk of flooding and increase the use of SUDS.	+	+	+	Medium	GM wide	Long term		<p>The policy specifies that the working of natural building stone will only be permitted where the working process is in accordance with the Key Planning and Environmental Criteria as set out in Policy 1, which include the impact of the proposal on flood risk management. The policy should therefore ensure that the extraction of natural building stone does not have a detrimental impact on flood risk.</p>	

19. To ensure the prudent use of natural resources and the sustainable management and safeguarding of existing resources.	+	+	+	Medium	GM wide	Long term		The policy provides a flexible approach that enables natural building stone to be extracted to meet the ad hoc nature of demand and variable nature of the resource.	
20. To minimise the requirement for energy use, promote efficient use and increase the use of energy from renewable resources.	+	+	+	Low	GM wide	Long term		The policy provides a mechanism for natural building stone to be worked where there is viable mineral for extraction. It could therefore enable Greater Manchester to meet a greater proportion of its own minerals needs and minimise the need to import minerals into the sub-region. There is however only limited certainty over the impact of the policy on this objective as the study which will identify sites within Greater Manchester that provide stone for heritage purposes has not yet been completed. As a result, the extent to which the stone used for conservation projects in Greater Manchester is obtained from sites within the sub-region is presently uncertain.	

<p><b>Sustainability Summary</b></p>	<p>The policy has the potential to have a positive impact on a number of sustainability objectives, particularly those relating to economic issues. By providing a flexible approach that enables natural building stone to be extracted to meet the ad hoc nature of demand and variable nature of the resource, it is anticipated that the policy will support growth in the minerals sector and it is therefore considered that the policy should have a positive impact on the objectives relating to exploiting the growth potential of businesses; encouraging sustainable economic growth; and developing and maintaining a healthy labour market.</p> <p>The policy provides a mechanism for natural building stone to be worked where there is viable mineral for extraction. It could therefore ensure that there is a supply of natural stone for the conservation and restoration of the historic built environment and reduce the need to import minerals into the sub-region. As a result, it is anticipated that the policy could have a positive impact on the objectives relating to developing Greater Manchester's image; reducing the need to travel; protecting, enhancing and restoring the rich diversity of cultural, built environment; mitigating climate change; and minimising the requirement for energy use. Nevertheless, the study which will identify sites within Greater Manchester that provide stone for heritage purposes has not yet been completed. As a result, the extent to which the stone used for conservation projects in Greater Manchester is obtained from sites within the sub-region is presently unknown. There is therefore only limited certainty over the impact of the policy on these objectives.</p> <p>By specifying that proposals for the working of natural building stone will only be permitted where they are in accordance with the Key Planning and Environmental Criteria as set out in Policy 1 of the Plan, the policy is likely to have some positive impact on the objective relating to protecting physical and mental health; protecting and enhancing biodiversity; protecting and improving landscape and townscape character; protecting local environmental quality; protecting and improving the quality of controlled waters; restoring and protecting land and soil; protecting air quality; and minimising the risk of flooding.</p> <p>There are no negative or uncertain effects on the sustainability objectives.</p>
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<b>Key for effects</b>					
++ major positive;	+ minor positive;	0 neutral;	– minor negative;	– – major negative;	? uncertain

Policy 4: Development Outside Areas of Search									
SA Objective	Timescale			Nature of Effect				Comments	Mitigation
	0 – 5 years	5 – 10 years	10+ years	Certainty	Scale	Permanence	Secondary, cumulative, synergistic		
<b>Economic</b>									
1. To exploit the growth potential of business sectors; increasing the usage and quality of recycled/secondary products.	+	+	+	Medium	GM wide	Long term	Increased employment opportunities and prosperity	The policy provides a mechanism for allowing non-aggregates to be worked where there are adequate mineral reserves on site in terms of quality and quantity. It could therefore have a positive impact on growth in the minerals sector and support the sub-objective of enabling new mineral extraction technologies to be developed and utilised.	
2. To encourage sustainable economic growth and assist in reducing the disparities of sub-regional economic performance	+	+	+	Medium	GM wide	Long term	Increased employment opportunities and prosperity	The policy provides a mechanism to ensure that economic growth is supported through the provision of adequate mineral reserves.	
3. To develop and market Greater Manchester's image.	+	+	+	Medium	GM wide	Long term		The policy requires proposals for the primary extraction of non-aggregates to be in accordance with the Key Planning and Environmental Criteria set out in Policy 1. This should ensure that proposals do not result in unacceptable visual intrusion or have an unacceptable effect on the built environment and the landscape.	
4. To develop and maintain a healthy labour market.	0	0	0	High	N/A	N/A		Unlikely to have any significant effects.	

Social									
5. To reduce the need to travel, improve choice and use of sustainable transport modes.	+	+	+	Low	GM wide	Long term	Positive impact on air quality and carbon emissions	The policy provides a mechanism for allowing non-aggregates to be worked where there are adequate mineral reserves on site in terms of quality and quantity. It could therefore enable Greater Manchester to meet a greater proportion of its own minerals needs and minimise the need to import minerals into the sub-region.	
6. To improve physical health and mental health and reduce health inequalities.	+	+	+	High	GM wide	Long term	Improved quality of life	The policy requires proposals for the primary extraction of non-aggregates to be in accordance with the Key Planning and Environmental Criteria set out in Policy 1. This will ensure that proposals for the primary extraction of non-aggregates do not have an unacceptable impact on health.	
7. To improve access to good quality affordable and resource efficient housing.	0	0	0	High	N/A	N/A		Unlikely to have any significant effects.	
8. To enable groups and communities to contribute to decision-making, and to reduce social exclusion.	0	0	0	High	N/A	N/A		Unlikely to have any significant effects.	
9. To improve access to and use of basic goods, services and amenities for all groups.	0	0	0	High	N/A	N/A		Unlikely to have any significant effects.	

Environmental										
10. To protect, enhance, manage and restore where appropriate, the rich diversity of cultural, built environment and archaeological assets and their settings.	+	+	+	High	GM wide	Long term	Secondary impacts on the image of the sub-region	The policy requires proposals for the primary extraction of non-aggregates to be in accordance with the Key Planning and Environmental Criteria set out in Policy 1. These criteria include the impact of the proposal on the historic environment and built heritage.		
11. To protect, enhance, manage and restore where appropriate biodiversity, protected species, habitats and sites of geological importance.	+	+	+	High	GM wide	Long term	Improved image of the sub-region	The policy requires proposals for the primary extraction of non-aggregates to be in accordance with the Key Planning and Environmental Criteria set out in Policy 1. These criteria include the impact of the proposal on biological and geological conservation.		
12. To protect and improve landscape and townscape character and accessibility.	+	+	+	High	GM wide	Long term	Improved image of the sub-region	The policy requires proposals for the primary extraction of non-aggregates to be in accordance with the Key Planning and Environmental Criteria set out in Policy 1. These criteria include the impact of the proposal on the landscape and visual intrusion.		
13. To protect and improve local environmental quality and reduce crime.	+	+	+	High	GM wide	Long term	Improved quality of life and perceptions of the area.	The policy requires proposals for the primary extraction of non-aggregates to be in accordance with the Key Planning and Environmental Criteria set out in Policy 1. The impact of the application on factors that contribute to local environmental quality would be considered when making this assessment.		

14. To protect and improve the quality of controlled waters.	+	+	+	High	GM wide	Long term	Positive impact on biodiversity	The policy requires proposals for the primary extraction of non-aggregates to be in accordance with the Key Planning and Environmental Criteria set out in Policy 1. These criteria include the impact of the proposal on the protection of controlled waters.	
15. To protect and improve air quality.	+	+	+	Medium	GM wide	Long term	Positive impact on health, particularly amongst those who suffer from respiratory illnesses.	The policy requires proposals for the primary extraction of non-aggregates to be in accordance with the Key Planning and Environmental Criteria set out in Policy 1. The list of criteria to be considered makes a specific reference to dust. In addition, the policy could reduced the need to import minerals into the sub-region and could thereby help minimise emissions associated with the transportation of minerals.	
16. To restore and protect land and soil and to manage contaminated and potentially unstable land.	+	+	+	Medium	GM wide	Long term	Positive impact on biodiversity	The policy requires proposals for the primary extraction of non-aggregates to be in accordance with the Key Planning and Environmental Criteria set out in Policy 1. Issues such as the impact of the proposal on land instability and the best and most versatile agricultural land would be considered when making this assessment.	

17. To mitigate and adapt to climate change.	+	+	+	Low	GM wide	Long term		<p>Minerals extraction and processing activities would both use energy and result in increased CO2 emissions. The provision of aggregates is however required in order to achieve other sustainability objectives.</p> <p>The policy provides a mechanism for allowing non-aggregates to be worked where there are adequate mineral reserves on site in terms of quality and quantity. It could therefore enable Greater Manchester to meet a greater proportion of its own minerals needs and minimise the need to import minerals into the sub-region.</p>	
18. To minimise the risk of flooding and increase the use of SUDS.	+	+	+	Medium	GM wide	Long term		<p>The policy requires proposals for the primary extraction of non-aggregates to be in accordance with the Key Planning and Environmental Criteria set out in Policy 1. Flood risk management would be one issue that would be taken into consideration when making this assessment.</p>	
19. To ensure the prudent use of natural resources and the sustainable management and safeguarding of existing resources.	+	+	+	Medium	GM wide	Long term		<p>The policy provides a mechanism to enable minerals to be extracted if there is an adequate mineral reserve in terms of quality and quantity.</p>	

20. To minimise the requirement for energy use, promote efficient use and increase the use of energy from renewable resources.	+	+	+	Low	GM wide	Long term		The policy provides a mechanism for allowing non-aggregates to be worked where there are adequate mineral reserves on site in terms of quality and quantity. It could therefore enable Greater Manchester to meet a greater proportion of its own minerals needs and minimise the need to import minerals into the sub-region.	
<b>Sustainability Summary</b>	<p>The policy relating to the primary extraction of non-aggregate minerals has the potential to have a number of positive impacts. By requiring proposals to be in accordance with the Key Planning and Environmental Criteria contained within Policy 1, it is considered that the policy would provide additional protection to communities and the environment from the potential negative impacts associated with minerals development. As such, it is envisaged that the policy would have a positive impact on the objectives relating to physical and mental health; protecting the cultural, built environment; biodiversity and geodiversity; townscapes and landscapes; local environmental quality; water quality; air quality; land and soil; flood risk; and developing Greater Manchester's image.</p> <p>In addition, by providing a mechanism for allowing additional sites to be worked where there is an adequate reserve of the mineral in terms of quality and quantity, the policy has the potential to impact positively on the objectives of exploiting the growth potential of business sectors; encouraging sustainable economic growth; and ensuring the prudent use of natural resources. It would also assist Greater Manchester in meeting a greater proportion of its own minerals needs and thereby minimise the need to import minerals into the sub-region. This would have a positive impact on the objectives of reducing the need to travel; mitigating climate change; and minimising the requirement for energy use. Although it is acknowledged that the certainty of this impact on these objectives is low due to uncertainty over whether proposals for the primary extraction of non-aggregate minerals will come forward during the plan period.</p> <p>There are no negative or uncertain effects on the sustainability objectives. As such, no mitigation measures are recommended.</p>								

<b>Key for effects</b>					
++ major positive;	+ minor positive;	0 neutral;	– minor negative;	– – major negative;	? uncertain

Policy 5: Unconventional Gas Resources									
SA Objective	Timescale			Nature of Effect				Comments	Mitigation
	0 – 5 years	5 – 10 years	10+ years	Certainty	Scale	Permanence	Secondary, cumulative, synergistic		
<b>Economic</b>									
1. To exploit the growth potential of business sectors; increasing the usage and quality of recycled/secondary products.	+	+	+	Medium	GM wide	Long term	Increased job opportunities and prosperity	Supporting the exploration and production of unconventional gas could support the growth potential of businesses by diversifying the minerals sector. Identifying the full extent of the coalfield will support the development and utilisation of new and innovative mineral extraction technologies.	
2. To encourage sustainable economic growth and assist in reducing the disparities of sub-regional economic performance	+	+	+	Medium	GM wide	Long term	Reduced deprivation	The policy would support economic growth through supporting the diversification of the minerals sector and the creation of employment opportunities.	
3. To develop and market Greater Manchester's image.	+	+	+	Medium	GM wide	Long term		The policy would ensure that unconventional gas exploration and production is only permitted where it is environmentally acceptable and where all equipment is removed afterwards and the site restored in accordance with a scheme and to a standard approved by the Minerals Planning Authority. This will support the preservation of high quality built and natural environments.	The policy has been appraised in two stages. Following the first appraisal, the wording has been amended so that it no longer requires sites to be restored to their original land use. This improves the level of certainty that the policy would have a positive impact on this objective. No mitigation measures are therefore proposed.

4. To develop and maintain a healthy labour market.	+	+	+	Medium	GM wide	Long term	Reduced deprivation	The policy could result in the provision of a range of employment opportunities in the minerals sector.	
<b>Social</b>									
5. To reduce the need to travel, improve choice and use of sustainable transport modes.	0	0	0	Medium	N/A	N/A		Unlikely to have any significant effects.	
6. To improve physical health and mental health and reduce health inequalities.	+	+	+	Medium	GM wide	Long term	Positive impact on quality of life	Unconventional gas extraction can be a source of noise and vibration. However, the policy specifies that applications for exploration and production wells will only be permitted where they are in accordance with the Key Planning and Environmental Criteria as set out in Policy 1, which include the impact of the proposal on amenity.	
7. To improve access to good quality affordable and resource efficient housing.	0	0	0	High	N/A	N/A		Unlikely to have any significant effects.	
8. To enable groups and communities to contribute to decision-making, and to reduce social exclusion.	0	0	0	High	N/A	N/A		Unlikely to have any significant effects.	
9. To improve access to and use of basic goods, services and amenities for all groups.	0	0	0	High	N/A	N/A		Unlikely to have any significant effects.	

Environmental									
10. To protect, enhance, manage and restore where appropriate, the rich diversity of cultural, built environment and archaeological assets and their settings.	+	+	+	Medium	GM wide	Long term	Positive impact on perceptions of the area	The policy recognises that international and national heritage designations are likely to affect any proposed production and processing sites for unconventional gas. The policy should therefore provide protection to built heritage and archaeological assets. The policy also specifies that applications for unconventional gas exploration and production will only be permitted where they are in accordance with the Key Planning and Environmental Criteria set out in Policy 1. These considerations include the impact of the proposal on the historic environment and built heritage.	
11. To protect, enhance, manage and restore where appropriate biodiversity, protected species, habitats and sites of geological importance.	+	+	+	Medium	GM wide	Long term	Positive impact on perceptions of the area	The policy specifies that applications for unconventional gas exploration and production will only be permitted where they are in accordance with the Key Planning and Environmental Criteria set out in Policy 1. These include the impact of the proposal on biological and geological conservation. The policy also recognises that international and national environmental designations are likely to affect any proposed production and processing sites. This should ensure that biodiversity, protected species, habitats and sites of geological importance are protected.	

12. To protect and improve landscape and townscape character and accessibility.	+	+	+	Medium	GM wide	Long term	Positive impact on perceptions of the area.	The policy specifies that applications for unconventional gas exploration and production wells will only be permitted where they include detailed plans for the removal of all equipment and the restoration of the site to a standard approved by the Minerals Planning Authority. It also requires applications for unconventional gas exploration and production wells to be in accordance with the Key Planning and Environmental Criteria set out in Policy 1, which include the impact of the proposal on landscape and visual intrusion.	
13. To protect and improve local environmental quality and reduce crime.	+	+	+	Medium	GM wide	Long term	Positive impact on perceptions of the area.	The policy specifies that applications for unconventional gas exploration and production wells will only be permitted where they are in accordance with the Key Planning and Environmental Criteria set out in Policy 1. This should ensure that local environmental quality is protected.	
14. To protect and improve the quality of controlled waters.	+	+	+	Medium	GM wide	Long term	Secondary impacts on biodiversity.	The policy specifies that applications for unconventional gas exploration and production wells will only be permitted where they are in accordance with the Key Planning and Environmental Criteria set out in Policy 1. This should ensure that the quality of controlled waters is protected.	

15. To protect and improve air quality.	+	+	+	Medium	GM wide	Long term	Secondary impacts on health, particularly amongst those who suffer from respiratory illnesses.	The policy specifies that applications for unconventional gas exploration and production wells will only be permitted where they are in accordance with the Key Planning and Environmental Criteria set out in Policy 1. This should ensure that air quality is protected.	
16. To restore and protect land and soil and to manage contaminated and potentially unstable land.	+	+	+	Medium	GM wide	Long term		The policy specifies that applications for unconventional gas exploration and production wells will only be permitted where they are in accordance with the Key Planning and Environmental Criteria set out in Policy 1 and include detailed plans for the restoration of the site. By identifying the full extent of the coalfield the policy increases the likelihood of applications for unconventional gas exploration coming forward on brownfield as opposed to greenfield sites.	The policy has been appraised in two stages. Following the first appraisal, the wording has been amended so that it no longer requires sites to be restored to their original land use. This improves the level of certainty that the policy would have a positive impact on this objective. No mitigation measures are therefore proposed.
17. To mitigate and adapt to climate change.	-	-	-	Low	National	Long term	Negative secondary impacts associated with climate change, such as increased flood risk	The burning of fossil fuels, such as coal bed methane and coal mine methane, is a major contributor to climate change. Recovering unconventional gas resources increases the likelihood of the UK being 'locked into' dependence on fossil fuels. It may therefore have a negative impact on the sub-objective of minimising greenhouse gas emissions. It is however recognised that the importation of energy minerals from outside the UK would have a markedly greater impact on the objective of mitigating climate change.	National policy states that the Minerals Plan should not predetermine the appropriate levels of unconventional gas to be produced. No mitigation is therefore proposed.

18. To minimise the risk of flooding and increase the use of SUDS.	+	+	+	Medium	GM wide	Long term	Secondary impacts on biodiversity.	The policy specifies that applications for unconventional gas exploration and production wells will only be permitted where they are in accordance with the Key Planning and Environmental Criteria set out in. This should ensure that water abstraction, run-off and recharge are maintained within carrying capacity	
19. To ensure the prudent use of natural resources and the sustainable management and safeguarding of existing resources.	++	++	++	High	GM wide	Long term	Diversification of the UK energy mix and a positive impact on energy security.	The policy would lead to recovery of unconventional gas resources that may have otherwise remained unused. It would thereby support the prudent use of natural resources.	
20. To minimise the requirement for energy use, promote efficient use and increase the use of energy from renewable resources.	-	-	-	Low	National	Long term	Negative secondary impacts associated with climate change, such as increased flood risk	The burning of fossil fuels, such as coal bed methane and coal mine methane, is a major contributor to climate change. Recovering unconventional gas resources increases the likelihood of the UK being 'locked into' dependence on fossil fuels. It would therefore have a negative impact on the sub-objective of minimising the use of fossil fuels. It is however recognised that the importation of energy minerals from outside the UK would have a markedly greater impact on the objective of mitigating climate change.	National policy states that the Minerals Plan should not predetermine the appropriate levels of unconventional gas to be produced. No mitigation is therefore proposed.

<p><b>Sustainability Summary</b></p>	<p>The policy on unconventional gas resources would have a positive impact on a wide range of sustainability objectives. By leading to the recovery of unconventional gas that would have otherwise remained unused, the policy would have a major positive impact on the objective of ensuring the prudent use of natural resources and the sustainable management and safeguarding of existing resources. By supporting the exploration and production of unconventional gas the policy could also support economic growth and the diversification of the minerals sector. As such, it is envisaged that the policy is likely to have a positive effect on the objectives relating to exploiting the growth potential of business sectors; encouraging sustainable economic growth; and developing and maintaining a healthy labour market.</p> <p>The policy specifies that applications for unconventional gas exploration and production wells will only be permitted where they are in accordance with the Key Planning and Environmental Criteria in Policy 1. It also states that applications must be accompanied by detailed plans for the removal of all equipment and the restoration of the site to a standard approved by the Mineral Planning Authority. Consequently, it is concluded that the policy has the potential to have some positive impact on the objectives relating to Greater Manchester's image; health; the historic environment; biodiversity; landscape and townscape character; local environmental quality; air quality; flood risk; and the quality of controlled waters.</p> <p>The burning of fossil fuels, such as coal bed methane and coal mine methane, is a major contributor to climate change. Supporting the extraction and use of unconventional gas resources therefore has the potential to have a negative impact on the objectives relating to mitigating climate change and energy use. It is however recognised that the importation of energy minerals from outside the UK would have a markedly greater impact on the objective of mitigating climate change. Furthermore, it is noted that national policy stipulates that the Minerals Plan should not predetermine the appropriate level of unconventional gas to be produced. No mitigation measures to address this potential impact are therefore proposed.</p>
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<b>Key for effects</b>					
++ major positive;	+ minor positive;	0 neutral;	– minor negative;	– – major negative;	? uncertain

Policy 6: Peat									
SA Objective	Timescale			Nature of Effect				Comments	Mitigation
	0 – 5 years	5 – 10 years	10+ years	Certainty	Scale	Permanence	Secondary, cumulative, synergistic		
<b>Economic</b>									
1. To exploit the growth potential of business sectors; increasing the usage and quality of recycled/secondary products.	0	0	0	High	N/A	N/A		Existing planning permissions for peat extraction are considered to be sufficient to meet the horticultural industries needs. As a result, limiting peat extraction to where it is necessary to facilitate restoration is unlikely to have a significant effect on the growth potential of business sectors.	
2. To encourage sustainable economic growth and assist in reducing the disparities of sub-regional economic performance	0	0	0	High	N/A	N/A		Existing planning permissions for peat extraction are considered to be sufficient to meet the horticultural industries needs. As a result, limiting peat extraction only to instances where it is necessary to facilitate restoration is unlikely to have a significant effect on sustainable economic growth.	
3. To develop and market Greater Manchester's image.	+	+	+	Medium	Local	Long term		The proposed approach would lead to the protection of high quality natural environments, which will enhance Greater Manchester's image.	
4. To develop and maintain a healthy labour market.	0	0	0	High	N/A	N/A		Existing planning permissions for peat extraction are considered to be sufficient to meet the horticultural industries needs. As a result, limiting peat extraction only to instances where it is necessary to facilitate restoration is unlikely to have a significant effect on the labour market.	

<b>Social</b>									
5. To reduce the need to travel, improve choice and use of sustainable transport modes.	0	0	0	High	N/A	N/A		Existing planning permissions for peat extraction are considered to be sufficient to meet the horticultural industries needs. Limiting peat extraction in Greater Manchester to instances where it is necessary to facilitate restoration is therefore unlikely to increase the need to import peat into the sub-region. It is however noted that peat may however still need to be imported into the sub-region in order to provide blending material.	
6. To improve physical health and mental health and reduce health inequalities.	0	0	0	High	N/A	N/A		Unlikely to have any significant effects.	
7. To improve access to good quality affordable and resource efficient housing.	0	0	0	High	N/A	N/A		Unlikely to have any significant effects.	
8. To enable groups and communities to contribute to decision-making, and to reduce social exclusion.	0	0	0	High	N/A	N/A		Unlikely to have any significant effects.	
9. To improve access to and use of basic goods, services and amenities for all groups.	0	0	0	High	N/A	N/A		Unlikely to have any significant effects.	
<b>Environmental</b>									
10. To protect, enhance, manage and restore where appropriate, the rich diversity of cultural, built environment and archaeological assets and their settings.	+	+	+	Low	Local	Long term	Enhanced perceptions of the sub-region	Restricting peat extraction to instances where a site has previously been worked for peat and where extraction is necessary to restore the site should ensure the protection of any intact archaeological remains that are present in peat bogs.	

11. To protect, enhance, manage and restore where appropriate biodiversity, protected species, habitats and sites of geological importance.	++	++	++	Medium	GM wide	Long term	Enhanced perceptions of the sub-region  Improved adaptation to climate change	Peat bogs tend to have high biodiversity value. The policy would restrict peat extraction to sites which have been previously worked for peat and would limit the removal of peat to what is necessary to facilitate the restoration of the site. Whilst it is recognised that any peat that would be removed is in itself likely to be of importance to biodiversity, specifying that any extraction must be the minimum required to restore a site to lowland raised bog should ensure that the policy has a significant positive impact on biodiversity, particularly as lowland raised bog is a UK BAP priority habitat and is included in the list of protected habitats in Annex 1 of the European Habitats Directive.	
12. To protect and improve landscape and townscape character and accessibility.	+	+	+	High	GM wide	Long term	Enhanced perceptions of the sub-region	The policy will help protect the appearance of the sub-region's countryside, particularly the peat bogs in Bolton, Wigan and Salford, by restricting peat extraction to instances where a site has previously been worked for peat and where the site is to be restored to lowland raised bog.	
13. To protect and improve local environmental quality and reduce crime.	+	+	+	Medium	Local	Long term		The policy will have a positive impact on environmental quality, particularly in parts of Bolton, Salford and Wigan, through leading to the protection of peat bogs and only permitting the removal of peat where it is necessary to restore the site to lowland raised bog.	

14. To protect and improve the quality of controlled waters.	0	0	0	Medium	N/A	N/A		Unlikely to have any significant effects.	
15. To protect and improve air quality.	0	0	0	Medium	N/A	N/A		Unlikely to have any significant effects.	
16. To restore and protect land and soil and to manage contaminated and potentially unstable land.	++	++	++	Medium	GM wide	Long term	Enhanced perceptions of the sub-region	The policy will lead to the long-term protection of peat bogs by only permitting the removal of peat where it is necessary to restore the site. It will also allow for the restoration of degraded sites to lowland raised bog.	
17. To mitigate and adapt to climate change.	++	++	++	Medium	National	Long term		Restricting peat extraction to instances where a site has previously been worked for peat and where extraction is necessary to restore the site to lowland raised bog will reduce the likelihood of peat bogs being worked. This will enable them to continue to function as a 'carbon sink' and store carbon that would otherwise be emitted to the atmosphere.	
18. To minimise the risk of flooding and increase the use of SUDS.	++	++	++	Medium	Local	Long term	Improved adaptation to climate change	Peat bogs provide potentially important water storage, which can reduce surface water run-off and the risk of flooding. Restricting new peat workings to where these are necessary for restoration will increase the likelihood of peat bogs continuing to fulfil this role.	
19. To ensure the prudent use of natural resources and the sustainable management and safeguarding of existing resources.	++	++	++	Medium	Local	Long term		Relying on existing planning permissions for peat, which are sufficient to meet demand, will ensure that peat resources are used wisely and will encourage the development of substitute products.	

20. To minimise the requirement for energy use, promote efficient use and increase the use of energy from renewable resources.	+	+	+	Medium	GM wide	Long term		Restricting peat extraction to instances where a site has previously been worked for peat and where extraction is necessary to restore the site to lowland raised bog will reduce the likelihood of peat bogs being worked. This will enable them to continue to function as a 'carbon sink' and store carbon that would otherwise be emitted to the atmosphere. The policy would therefore have a positive impact on the sub-objective of reducing greenhouse gas emissions.	
<b>Sustainability Summary</b>	<p>Policy 6 would deliver a number of significant sustainability benefits. In particular, by restricting peat extraction to sites which have been previously worked for peat and by limiting the removal of peat to only what is necessary to facilitate the restoration of the site, the policy will lead to the protection of high quality natural environments and increase the likelihood of peat bogs continuing to function as a 'carbon sink'. As a result, it is anticipated that the policy would have a major positive impact on the objectives relating to mitigating climate change; ensuring the prudent use of natural resources; minimising the risk of flooding; and restoring and protecting land and soil; and some positive impact on the objectives relating to developing Greater Manchester's image; protecting local environmental quality; protecting landscapes; and protecting archaeological assets.</p> <p>Whilst it is recognised that all peat is likely to be of value to biodiversity, specifying that any peat extraction must be the minimum required to restore a previously worked site to lowland raised bog should ensure that the policy has a major positive impact on the objective relating to biodiversity, protected species and habitats, particularly as lowland raised bog is a UK BAP priority habitat and is included in the list of protected habitats in Annex 1 of the European Habitats Directive. Relying on existing planning permissions for peat, which are sufficient to meet demand, will ensure that peat resources are used wisely. In addition, as existing planning permissions for peat extraction run until 2042 and are considered to be sufficient to meet the horticultural industries needs up to that time, it is envisaged that limiting peat extraction to instances where it is necessary to facilitate the restoration of a site that has previously been worked for peat is unlikely to have a significant impact on the objectives relating to exploiting the growth potential of business sectors; encouraging sustainable economic growth and developing and maintaining a healthy labour market.</p> <p>There are no anticipated negative or uncertain effects on the sustainability objectives.</p>								

**Key for effects**

++ major positive;    + minor positive;    0 neutral;    – minor negative;    – – major negative;    ? uncertain

## **A3. MINERAL SAFEGUARDING AREAS**

Policy 7: Mineral Safeguarding Areas									
SA Objective	Timescale			Nature of Effect				Comments	Mitigation
	0 – 5 years	5 – 10 years	10+ years	Certainty	Scale	Permanence	Secondary, cumulative, synergistic		
<b>Economic</b>									
1. To exploit the growth potential of business sectors; increasing the usage and quality of recycled/secondary products.	+	+	+	Low	GM wide	Long term		<p>The policy will prevent minerals from being sterilised unnecessarily. This would support growth in the minerals sector and enable new mineral extraction technologies to be developed and utilised.</p> <p>The exclusion of the urban area within the Mineral Safeguarding Area (MSA) may however mean that some opportunities for prior extraction on regeneration projects and brownfield sites are missed. However, it is recognised that there have been limited examples of extraction taking place in the urban area in Greater Manchester. The policy also notes that the exclusion of the urban area does not mean that prior extraction of minerals is wholly unsuitable in this location.</p> <p>The policy may however discourage the development of markets for recycled/secondary products. This reduces the certainty that the policy would have a positive impact on this objective.</p>	

2. To encourage sustainable economic growth and assist in reducing the disparities of sub-regional economic performance	+	+	+	Medium	GM wide	Long term	Positive impact on prosperity and job creation.	The policy will ensure that minerals are not sterilised unnecessarily, which will ensure economic growth is not constrained by an inadequate provision of mineral reserves. The policy would also ensure that other development is not restricted where the need for that development outweighs the need to extract the mineral.	
3. To develop and market Greater Manchester's image.	+	+	+	Medium	GM wide	Long term		The policy would not require minerals to be extracted prior to a non-minerals development taking place in a MSA if prior extraction would have an unacceptable impact on the Key Planning and Environmental Criteria set out in Policy 1.	
4. To develop and maintain a healthy labour market.	+	+	+	Medium	GM wide	Long term	Reduced deprivation	Encouraging the prior extraction of viable mineral resources prior to non-minerals development taking place in a MSA would help meet any shortfalls in provision. This should lead to the creation of a number of employment opportunities.	
<b>Social</b>									
5. To reduce the need to travel, improve choice and use of sustainable transport modes.	+	+	+	Medium	GM wide	Long term	Reduced congestion and greenhouse gas emissions.	The policy would ensure minerals are not sterilised unnecessarily. This could reduce the need to import minerals from outside the sub-region, which will help minimise the transportation of minerals.	

6. To improve physical health and mental health and reduce health inequalities.	+	+	+	Medium	GM wide	Long term	Positive secondary impacts on quality of life	The policy would not require the prior extraction of minerals in a MSA if prior extraction would have an unacceptable environmental impact. In addition, excluding urban areas from the MSA reduces the likelihood of communities being affected by the potential nuisances associated with minerals development, such as dust and noise.	
7. To improve access to good quality affordable and resource efficient housing.	+	+	+	Medium	GM wide	Long term	Positive impact on quality of life.	The policy should help ensure that there are sufficient minerals to support the ambitious growth strategy for Greater Manchester. Householder developments are listed as 'exempt development'. Homeowners who live within a MSA will still therefore be able to make alterations/extension to their property without needing to submit information on the viability of extracting the mineral resource.	
8. To enable groups and communities to contribute to decision-making, and to reduce social exclusion.	0	0	0	High	N/A	N/A		Unlikely to have any significant effects.	
9. To improve access to and use of basic goods, services and amenities for all groups.	0	0	0	High	N/A	N/A		The policy does not preclude the provision of improved services and facilities if there is an overriding need for such a development.	

Environmental										
10. To protect, enhance, manage and restore where appropriate, the rich diversity of cultural, built environment and archaeological assets and their settings.	+	+	+	Medium	GM wide	Long term			<p>The policy would not require minerals to be extracted prior to a non-minerals development taking place in a MSA if prior extraction would have an unacceptable environmental impact. This will ensure that the cultural, built environment will be protected. Applications for Conservation Area Consent and Listed Building Consent are exempt from the policy. Therefore, many proposals to protect/enhance the character and appearance of historic buildings and conservation areas will not be delayed by a requirement to submit information on the viability of extracting mineral resources. Furthermore, the policy specifies that proposals for prior extraction must be in accordance with the Key Planning and Environmental Criteria set out in Policy 1, which include the impact of the proposal on the historic environment and built heritage.</p>	

11. To protect, enhance, manage and restore where appropriate biodiversity, protected species, habitats and sites of geological importance.	+	+	+	Medium	GM wide	Long term		The policy would not require minerals to be extracted prior to a non-minerals development taking place in a MSA if prior extraction would have an unacceptable environmental impact. Furthermore, the policy specifies that proposals for prior extraction must be in accordance with the Key Planning and Environmental Criteria set out in Policy 1, which include the impact of the proposal on biological and geological conservation.	
12. To protect and improve landscape and townscape character and accessibility.	+	+	+	Medium	GM wide	Long term		The policy would not require the prior extraction of minerals in a MSA if prior extraction would have an unacceptable environmental impact. This is likely to ensure that the quality of landscapes and townscapes are protected. In addition, it is specified that proposals for the prior extraction of minerals will only be permitted where they are in accordance with the Key Planning and Environmental Criteria contained within Policy 1. These criteria include the impact of the proposal on landscape and visual intrusion.	
13. To protect and improve local environmental quality and reduce crime.	+	+	+	Medium	GM wide	Long term		The policy would not require minerals to be extracted prior to a non-minerals development taking place in a MSA if prior extraction would have an unacceptable environmental impact.	

14. To protect and improve the quality of controlled waters.	+	+	+	Medium	GM wide	Long term		The policy would not require minerals to be extracted prior to a non-minerals development taking place in a MSA if prior extraction would have an unacceptable environmental impact. This is likely to ensure that the quality of controlled waters is protected. In addition, it is specified that proposals for the prior extraction of minerals will only be permitted where they are in accordance with the Key Planning and Environmental Criteria contained within Policy 1. These criteria include the impact of the proposal on the protection of controlled waters.	
15. To protect and improve air quality.	+	+	+	Medium	GM wide	Long term	Positive impact on health, particularly among those who suffer from respiratory illnesses	The policy would ensure that minerals are not sterilised unnecessarily. This could reduce the likelihood of the sub-region becoming more reliant on minerals from outside Greater Manchester, which will help minimise the transportation of minerals. In addition, the policy would prevent the prior extraction of minerals where it would not be environmentally acceptable.	

16. To restore and protect land and soil and to manage contaminated and potentially unstable land.	+	+	+	Medium	GM wide	Long term		The prior extraction of minerals can support land remediation or stabilisation schemes. As such, the policy could help manage contaminated and potentially unstable land. It is recognised that the exclusion of the urban area from the MSA may mean that some opportunities for prior extraction as part of a land remediation or stabilisation scheme are missed. The policy does however note that the exclusion of the urban area does not mean that prior extraction of minerals is wholly unsuitable in this location.	
17. To mitigate and adapt to climate change.	+	+	+	Medium	GM wide	Long term		The policy will ensure minerals are not sterilised unnecessarily. This could reduce Greater Manchester's reliance on importing new minerals from outside the sub-region, which will help minimise energy use and greenhouse gas emissions associated with the transportation of minerals.	
18. To minimise the risk of flooding and increase the use of SUDS.	+	+	+	Medium	GM wide	Long term		The policy would not require minerals to be extracted prior to a non-minerals development taking place in a MSA if prior extraction would have an unacceptable environmental impact. In addition, it is specified that proposals for the prior extraction of minerals will only be permitted where they are in accordance with the Key Planning and Environmental Criteria contained within Policy 1. These criteria include the impact of the proposal on flood risk management.	

19. To ensure the prudent use of natural resources and the sustainable management and safeguarding of existing resources.	+ +	+ +	+ +	Medium	GM wide	Long term		The policy would help ensure mineral resources are safeguarded and not sterilised unnecessarily by encouraging the extraction of any viable mineral resources prior to non-minerals development taking place. Although the urban area would be excluded from the MSA, it is recognised that there have been limited examples of extraction taking place in the urban area in Greater Manchester. In addition, the policy notes that the exclusion of the urban area does not mean that prior extraction of minerals is wholly unsuitable in this location.	
20. To minimise the requirement for energy use, promote efficient use and increase the use of energy from renewable resources.	+	+	+	Medium	GM wide	Long term	Reduced greenhouse gas emissions	The policy will ensure minerals are not sterilised unnecessarily. This would reduce the likelihood of Greater Manchester becoming reliant on importing minerals from outside the sub-region, which will help minimise energy use associated with the transportation of minerals.	

<p><b>Sustainability Summary</b></p>	<p>By preventing Greater Manchester's mineral resources from being sterilised unnecessarily, the Mineral Safeguarding Areas (MSAs) policy would have a major positive impact on the objective of ensuring the prudent use of natural resources and the sustainable management and safeguarding of existing resources. The policy would also reduce the likelihood of the sub-region becoming more dependent on minerals from outside Greater Manchester. It is therefore anticipated that the policy would have a positive impact on the objectives relating to reducing the need to travel; mitigating climate change; and decreasing the need to consume energy.</p> <p>The policy would not require minerals to be extracted prior to a non-minerals development taking place in a MSA if prior extraction would have an unacceptable environmental impact. In addition, it requires proposals for the prior extraction of minerals to be in accordance with the Key Planning and Environmental Criteria set out in Policy 1. Consequently, it is anticipated that the policy would have a positive impact on the objectives relating to Greater Manchester's image; built heritage; biodiversity, protected species and habitats; landscape and townscape character; local environmental; the quality of controlled waters; air quality; managing contaminated and potentially unstable land; and minimising flood risk. In addition, the exclusion of the urban areas from the MSA reduces the likelihood of communities being affected by the potential nuisances associated with minerals development, such as dust and noise. It is therefore envisaged that the policy would also have some positive impact on the objective relating to improving physical and mental health.</p> <p>By ensuring that minerals are not unnecessarily sterilised, the policy on Mineral Safeguarding Areas would also help ensure that economic growth is not constrained by an inadequate provision of mineral reserves. This would have a positive impact on the economic objectives relating to the sustainable economic growth and developing a healthy labour market. It is however acknowledged that the requirement to explore the opportunities for prior extraction of minerals could result in delays to some developments, which reduces the level of certainty over the impact on these objectives.</p> <p>The policy will prevent minerals from being sterilised unnecessarily and provides a mechanism to meet any shortfall in minerals provision during the plan period. It is therefore envisaged that the policy would have a positive impact on the objective of exploiting the growth potential of business sectors. The exclusion of the urban area from the MSA may mean that some opportunities for prior extraction on regeneration projects and brownfield sites are missed. Nevertheless, it is recognised that there have been limited examples of extraction taking place in the urban area in Greater Manchester and the supporting text to the policy states that the exclusion of the urban area does not mean that prior extraction of minerals is wholly unsuitable in this location.</p> <p>There are no negative or uncertain effects on the sustainability objectives.</p>
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<b>Key for effects</b>					
++ major positive;	+ minor positive;	0 neutral;	– minor negative;	-- major negative;	? uncertain

## **A4. DEVELOPMENT MANAGEMENT**

Policy 8: Sustainable Transport of Minerals									
SA Objective	Timescale			Nature of Effect				Comments	Mitigation
	0 – 5 years	5 – 10 years	10+ years	Certainty	Scale	Permanence	Secondary, cumulative, synergistic		
<b>Economic</b>									
1. To exploit the growth potential of business sectors; increasing the usage and quality of recycled/secondary products.	0	0	0	Medium	N/A	N/A		The policy would not require minerals to be transported by more sustainable modes where it would be so costly as to render the minerals development unviable. Therefore, it is unlikely to have any significant effects on the growth potential of business sectors.	
2. To encourage sustainable economic growth and assist in reducing the disparities of sub-regional economic performance	0	0	0	Medium	N/A	N/A		The policy would not require minerals to be transported by more sustainable modes where it would be so costly as to render the minerals development unviable. Therefore, it is unlikely to have any significant effects on economic growth by affecting the provision of adequate mineral reserves.	
3. To develop and market Greater Manchester's image.	+	+	+	Low	GM wide	Long term	Improved quality of life.  Improved perceptions of the area.	The policy would help protect the character and quality of settlements from the traffic associated with the transportation of minerals by road. The level of certainty of this impact is only low however as there are likely to be a number of instances where the transportation of minerals by rail or canal is not feasible or economically viable.	
4. To develop and maintain a healthy labour market.	0	0	0	Medium	N/A	N/A		Unlikely to have any significant effects.	

<b>Social</b>									
5. To reduce the need to travel, improve choice and use of sustainable transport modes.	+	+	+	Low	GM wide	Long term	Reduce congestion and carbon emissions.	The policy would support sustainable transport use and minimise the amount of minerals that are transported by road. It would not however appear to have any significant impact on the objective of reducing the need to travel or the sub-objective of minimising the transportation of minerals where possible. This reduces the level of certainty that the policy would have a positive impact on this objective.	
6. To improve physical health and mental health and reduce health inequalities.	+	+	+	Medium	GM wide	Long term	Improved quality of life	The policy would prevent minerals development involving the transport of minerals by road if the traffic generated would have an unacceptable impact on local residents, the environment or road safety. This should reduce nuisances associated with minerals development and thereby help protect physical and mental health.	
7. To improve access to good quality affordable and resource efficient housing.	0	0	0	High	N/A	N/A		Unlikely to have any significant effects.	
8. To enable groups and communities to contribute to decision-making, and to reduce social exclusion.	0	0	0	High	N/A	N/A		Unlikely to have any significant effects.	
9. To improve access to and use of basic goods, services and amenities for all groups.	0	0	0	High	N/A	N/A		Unlikely to have any significant effects.	

<b>Environmental</b>										
10. To protect, enhance, manage and restore where appropriate, the rich diversity of cultural, built environment and archaeological assets and their settings.	0	0	0	Medium	N/A	N/A			Unlikely to have any significant effects.	
11. To protect, enhance, manage and restore where appropriate biodiversity, protected species, habitats and sites of geological importance.	0	0	0	Medium	N/A	N/A			Unlikely to have any significant effects.	
12. To protect and improve landscape and townscape character and accessibility.	+	+	+	Medium	GM wide	Long term	Improved perceptions of the area.	The policy would prevent minerals development involving the transport of minerals by road if the traffic generated would have an unacceptable impact on the environment. This would ensure that landscape and townscape character is protected.		
13. To protect and improve local environmental quality and reduce crime.	+	+	+	Medium	GM wide	Long term	Improved perceptions of the area.	The policy would prevent minerals development involving the transport of minerals by road if the traffic generated would have an unacceptable impact on the environment. This would ensure that the quality of the local environment is protected.		

14. To protect and improve the quality of controlled waters.	0	0	0	Medium	N/A	N/A		Increasing the use of canals to transport minerals has the potential to have a detrimental impact on water quality. Nevertheless, policies in the districts Core Strategies, together with other legislation that is in place, should ensure that water quality is adequately protected.	
15. To protect and improve air quality.	+	+	+	High	GM wide	Long term	Positive secondary impact on health, particularly amongst those who already suffer from respiratory illnesses.	The policy encourages the transportation of minerals by more sustainable means and states that the transport of minerals by road will only be acceptable where the traffic generated would not have an unacceptable impact on the local environment. As a result, the transportation of minerals by road would not be permitted where it would have an unacceptable impact on air quality.	
16. To restore and protect land and soil and to manage contaminated and potentially unstable land.	0	0	0	Medium	N/A	N/A		Unlikely to have any significant effects.	
17. To mitigate and adapt to climate change.	+	+	+	Low	National	Long term		The policy encourages the transportation of minerals by more sustainable means in preference to road transport. This would help reduce greenhouse gas emissions associated with the transportation of minerals. The level of certainty of this impact is only low however as there are likely to be a number of instances where the transportation of minerals by rail or canal is not feasible or economically viable.	

18. To minimise the risk of flooding and increase the use of SUDS.	0	0	0	High	N/A	N/A		Unlikely to have any significant effects.	
19. To ensure the prudent use of natural resources and the sustainable management and safeguarding of existing resources.	0	0	0	Medium	N/A	N/A		Unlikely to have any significant effects.	
20. To minimise the requirement for energy use, promote efficient use and increase the use of energy from renewable resources.	+	+	+	Low	GM wide	Long term	Reduced carbon emissions	The policy would increase the efficient use of energy in the transportation of minerals by encouraging more sustainable alternatives to road transport. The level of certainty of this impact is only low however as there are likely to be a number of instances where the transportation of minerals by rail or canal is not feasible or economically viable.	
<b>Sustainability Summary</b>	<p>The policy relating to the transport of minerals would have a positive impact on a number of the sustainability objectives. In particular, by encouraging the transportation of minerals by more sustainable modes in preference to road transport, the policy would have a positive impact on the objectives relating to the use of sustainable transport modes; mitigating climate change; and promoting the efficient use of energy. Nevertheless, the level of certainty of this impact is low due to the fact that there are likely to be a number of instances where the transportation of minerals by rail or canal is not feasible or economically viable.</p> <p>The policy would prevent minerals development involving the transport of minerals by road if the traffic generated would have an unacceptable impact on local residents, through for example noise, dust or vibrations, or road safety. Therefore, it is concluded that the policy is likely to have a positive impact on the objective relating to physical and mental health. The policy would also prevent minerals development involving the transport of minerals by road if the traffic generated would have an unacceptable impact on the environment. As a result, it is concluded that the policy is likely to have a positive impact on the objectives relating to developing Greater Manchester's image, protecting local environmental quality, protecting air quality and protecting townscape character.</p> <p>The policy would not require minerals to be transported by sustainable means where it would be so costly as to render the minerals development unviable. As a result, it is envisaged that the policy would not have a negative impact on the economic objectives of exploiting the growth potential of business sectors, encouraging sustainable economic growth or developing a healthy labour market. It is therefore considered that the policy would have no negative or uncertain effects on the sustainability objectives.</p>								

**Key for effects**

++ major positive;    + minor positive;    0 neutral;    – minor negative;    – – major negative;    ? uncertain

Policy 9: Reworking of Colliery Spoil Tips									
SA Objective	Timescale			Nature of Effect				Comments	Mitigation
	0 – 5 years	5 – 10 years	10+ years	Certainty	Scale	Permanence	Secondary, cumulative, synergistic		
<b>Economic</b>									
1. To exploit the growth potential of business sectors; increasing the usage and quality of recycled/secondary products.	+	+	+	Low	GM wide	Long term	Increased job opportunities and prosperity	Reworking of colliery spoil tips could support the growth potential of business sectors by providing additional opportunities in the minerals sector. However, the certainty of this impact is reduced by the fact that the policy now specifies that reworking will only be permitted where it is demonstrated that it is necessary to restore the tip to remedy environmental defects.	
2. To encourage sustainable economic growth and assist in reducing the disparities of sub-regional economic performance	+	+	+	Low	GM wide	Long term	Reduced deprivation	The policy would support economic growth by providing additional opportunities in the minerals sector and through the creation of associated employment opportunities. However, the certainty of this impact is reduced by the fact that the policy now specifies that reworking will only be permitted where it is demonstrated that it is necessary to restore the tip to remedy environmental defects.	

3. To develop and market Greater Manchester's image.	+	+	+	Low	GM wide	Long term		The policy specifies that reworking will only be permitted where it would not have an unacceptable impact on the Key Planning and Environmental Criteria listed in Policy 1 that cannot be mitigated; these include the impact of the proposal on landscape and visual intrusion. The policy should therefore provide protection to colliery spoil tips where these have become an established feature with landscape value. However, the policy now no longer requires the reworking of colliery tips to result in a visual improvement to the area which reduces the certainty of the impact on this objective.	Consider adding 'and improve the visual amenity of the area' to the second criteria in the policy.
4. To develop and maintain a healthy labour market.	+	+	+	Medium	GM wide	Long term	Reduced deprivation	The policy could result in the provision of a range of employment opportunities in the minerals sector.	

<b>Social</b>									
5. To reduce the need to travel, improve choice and use of sustainable transport modes.	-	-	-	Low	GM wide	Long term	Increased congestion and disturbance due to HGV movements unless more sustainable modes of transport are used.	There are no coal-fired power stations in Greater Manchester. Therefore, coal recovered from colliery spoil tips would need to be transported to coal-fired power stations outside the sub-region. It is however recognised that the only alternative to incremental coal output in the UK is the import of coal over long distances and that this would have a markedly more significant negative impact on the sub objective of minimising the transportation of minerals.	The promotion of the use of sustainable modes of transporting coal out of Greater Manchester by the Plan will help address some of the impacts.
6. To improve physical health and mental health and reduce health inequalities.	+	+	+	High	GM wide	Long term		The reworking of colliery spoil tips would potentially be a source of noise and dust which could have a negative impact on health. Nevertheless, the policy specifies that reworking will only be permitted where it would not have an unacceptable impact that cannot be mitigated on the Key Planning and Environmental Criteria listed in Policy 1; these include the impact of the proposal on amenity.	
7. To improve access to good quality affordable and resource efficient housing.	0	0	0	High	N/A	N/A		Unlikely to have any significant effects.	
8. To enable groups and communities to contribute to decision-making, and to reduce social exclusion.	0	0	0	High	N/A	N/A		Unlikely to have any significant effects.	

9. To improve access to and use of basic goods, services and amenities for all groups.	0	0	0	High	N/A	N/A		Unlikely to have any significant effects.	
<b>Environmental</b>									
10. To protect, enhance, manage and restore where appropriate, the rich diversity of cultural, built environment and archaeological assets and their settings.	+	+	+	High	GM wide	Long term		The policy specifies that reworking will only be permitted where it would not have an unacceptable impact that cannot be mitigated on the Key Planning and Environmental Criteria listed in Policy 1; these include the impact of the proposal on the historic environment and built heritage.	
11. To protect, enhance, manage and restore where appropriate biodiversity, protected species, habitats and sites of geological importance.	+	+	+	High	GM wide	Long term	Secondary impact on perceptions of the area	Reworking of colliery spoil tips can have an adverse impact on established wildlife and biodiversity value. Nevertheless, the policy specifies that reworking will only be permitted where it would not have an unacceptable impact on the Key Planning and Environmental Criteria listed in Policy 1 that cannot be mitigated; these include the impact of the proposal on biological and geological conservation. In addition, the subsequent restoration schemes could create new habitats.	Ensure appropriate ecological surveys are conducted prior to development.  Policy 12 in the Plan seeks to ensure that restored minerals sites, including reworked colliery spoil tips, provide for the enhancement of biodiversity assets, European Sites and the ecological value of the site.

12. To protect and improve landscape and townscape character and accessibility.	+ +	+ +	+ +	Medium	GM wide	Long term	Secondary impact on perceptions of the area	Reworking colliery spoil tips is likely to have a significant visual impact. Nevertheless, the policy specifies that reworking will only be permitted where it would not have an unacceptable impact on the Key Planning and Environmental Criteria listed in Policy 1 that cannot be mitigated; these include the impact of the proposal on landscape and visual intrusion. The policy should therefore provide protection to colliery spoil tips where these have become an established feature with landscape value. However, the policy no longer requires the reworking of colliery tips to result in a visual improvement to the area which reduces the certainty of the impact on this objective.	Consider adding 'and improve the visual amenity of the area' to the second criteria in the policy.  Policy 12 in the Plan seeks to ensure that restored minerals sites, including reworked colliery spoil tips, provide for the enhancement of the quality of the landscape.
13. To protect and improve local environmental quality and reduce crime.	+	+	+	Low	GM wide	Long term	Secondary impact on perceptions of the area	The policy specifies that reworking will only be permitted where it would not have an unacceptable impact on the Key Planning and Environmental Criteria listed in Policy 1 that cannot be mitigated; these include the impact of the proposal on landscape and visual intrusion. The policy should therefore provide protection to colliery spoil tips where these have become an established feature with landscape value. However, the policy no longer requires the reworking of colliery tips to result in a visual improvement to the area which reduces the certainty of the impact on this objective.	Consider adding 'and improve the visual amenity of the area' to the second criteria in the policy.  Policy 12 in the Minerals Plan seeks to ensure that minerals sites, including reworked colliery spoil tips, are appropriately restored once operations have ceased.

14. To protect and improve the quality of controlled waters.	+	+	+	Medium	GM wide	Long term	Secondary impacts on biodiversity	The excavation and movement of spoil could result in surface water runoff being contaminated with solids in suspension. Nevertheless, spoil tips that are not presently worked could potentially be an existing source of water pollution. Therefore, the reworking of these tips may offer the potential to address existing environmental issues. Furthermore, the policy specifies that the reworking of colliery spoil tips will only be permitted where it is necessary to restore the tip to remedy environmental defects.	
15. To protect and improve air quality.	-	-	-	Medium	GM wide	Long term	Potential negative impact on health, particularly amongst those who already suffer from respiratory illnesses.	As there are no coal-fired power stations in Greater Manchester, coal obtained from reworked colliery spoil tips would need to be transported to coal-fired power stations outside the sub-region, which could have a detrimental impact on air quality. In addition, the physical restoration of reworked colliery spoil tips has the potential to generate dust.	The promotion of the use of sustainable modes of transporting coal out of Greater Manchester by the Plan will help address some of these impacts.
16. To restore and protect land and soil and to manage contaminated and potentially unstable land.	++	++	++	Medium	GM wide	Long term	Improved perceptions of the area	The policy would support the restoration of land that has been badly degraded through its use as a colliery spoil tip. It is also likely to reduce the need for new extraction sites.	Policy 11 in the Minerals Plan seeks to ensure that minerals sites, including reworked colliery spoil tips, are appropriately restored once reworking operations have ceased.

17. To mitigate and adapt to climate change.	-	-	-	Low	National	Long term	Negative secondary impacts associated with climate change, such as increased flood risk	The Energy White Paper recognises that coal will remain an important part of the UK's energy mix. Nevertheless, the burning of fossil fuels, such as coal, is a major contributor to climate change. Recovering coal from colliery spoil tips increases the likelihood of the UK being 'locked into' dependence on fossil fuels. In addition, as there are no coal-fired power stations in Greater Manchester, coal recovered from the sub-region would need to be transported to coal-fired power stations outside the sub-region. It is however recognised that the only alternative to incremental coal output in the UK is the import of coal over long distances which would have a more significant negative impact on greenhouse gas emissions.	National planning guidance stipulates that the planning system should not predetermine the appropriate levels of coal to be produced by underground or opencast mining.  The promotion of sustainable modes of transporting coal out of Greater Manchester by the Plan will help address some of the impacts.
18. To minimise the risk of flooding and increase the use of SUDS.	+	+	+	Medium	GM wide	Long term		Restoration schemes are likely to be accompanied by appropriate drainage systems. The policy also specifies that reworking will only be permitted where it would not have an unacceptable impact on the Key Planning and Environmental Criteria listed in Policy 1 that cannot be mitigated; these include the impact of the proposal on flood risk management.	

19. To ensure the prudent use of natural resources and the sustainable management and safeguarding of existing resources.	++	++	++	Medium	GM wide	Long term	Positive impact on energy security	The policy would lead to recovery of coal that would have otherwise remained unused and would thereby support the prudent use of natural resources. However, the certainty of this impact is reduced by the fact that the policy now specifies that reworking will only be permitted where it is demonstrated that it is necessary to restore the tip to remedy environmental defects.	
20. To minimise the requirement for energy use, promote efficient use and increase the use of energy from renewable resources.	-	-	-	Low	National	Long term	Negative secondary impacts associated with climate change, such as increased flood risk	The Energy White Paper recognises that coal will remain an important part of the UK's energy mix. Nevertheless, the burning of fossil fuels, such as coal, is a major contributor to climate change. Recovering coal from colliery spoil tips increases the likelihood of the UK being 'locked into' dependence on fossil fuels. It is however recognised that the only alternative to incremental coal output in the UK is the import of coal over long distances which would have a more significant negative impact on greenhouse gas emissions.	National planning guidance stipulates that the planning system should not predetermine the appropriate levels of coal to be produced by underground or opencast mining. Therefore, no mitigation is proposed.

<p><b>Sustainability Summary</b></p>	<p>Policy 9 would have a positive impact on a number of the economic objectives. It would lead to recovery of coal that would have otherwise remained unused. It would thereby have a major positive impact on the objective of ensuring the prudent use of natural resources and the sustainable management and safeguarding of existing resources. It would also provide additional opportunities in the minerals sector and result in the creation of a number of employment opportunities. As such, the policy is likely to have a positive impact on the objectives relating to exploiting the growth potential of business sectors; promoting sustainable economic growth; and developing and maintaining a healthy labour market. Nevertheless, it is considered that the certainty that the policy would have a positive impact on each of these objectives is reduced by the fact that the policy now specifies that reworking will only be permitted where it is necessary to restore the tip to remedy environmental defects, which may reduce the number of instances in which colliery spoil tips are reworked.</p> <p>The policy would support the restoration of land that has been badly degraded through its use as a colliery spoil tip and would potentially reduce the need for new extraction sites. It is therefore anticipated that the policy would have a major positive affect on the objective relating to restoring and protecting land and soil and managing contaminated and unstable land. The policy specifies that the reworking of colliery spoil tips will only be permitted if it is compliant with the Key Planning and Environmental Criteria listed in Policy 1. In addition, the policy stipulates that the reworking of spoil tips will only be permitted where it is necessary to restore the tip to remedy environmental defects. As a result, it is envisaged that the policy would have a major positive impact on the objective relating to protecting and improving landscape character and a positive impact on the objective relating to protecting, enhancing and restoring biodiversity, protected species and habitats; local environmental quality; and the quality of controlled waters. It is however noted that the policy no longer makes reference to the reworking of colliery tips resulting in a visual improvement to the area. This reduces the level of certainty that the policy would have on the objectives relating to the image of Greater Manchester; landscape character; and local environmental quality.</p> <p>The policy has the potential to give rise to a number of negative impacts. There are no coal-fired power stations in Greater Manchester and, as a result, coal obtained from reworked colliery spoil tips would need to be transported to coal-fired power stations outside of the sub-region. As a result, the policy could potentially have a negative effect on the objectives relating to air quality; reducing the need to travel; mitigating climate change; and minimising the requirement for energy use. The promotion of the use of sustainable modes of transporting coal out of Greater Manchester by the Plan will however address some of these concerns. It is also recognised that the only alternative to incremental coal output in the UK is to import of coal over long distances which would have a more significant negative impact on greenhouse gas emissions and energy use.</p> <p>Recovering coal from colliery spoil tips also increases the likelihood of the UK being 'locked into' dependence on fossil fuels, which would have an adverse impact on the objectives relating to climate change and energy use. Nevertheless, as national guidance stipulates that the planning system should not predetermine the appropriate levels of coal to be produced, no mitigation measures are proposed to address this.</p>
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<b>Key for effects</b>					
++ major positive;	+ minor positive;	0 neutral;	– minor negative;	– – major negative;	? uncertain

Policy 10: Protecting Existing Minerals Sites / Infrastructure									
SA Objective	Timescale			Nature of Effect				Comments	Mitigation
	0 – 5 years	5 – 10 years	10+ years	Certainty	Scale	Permanence	Secondary, cumulative, synergistic		
<b>Economic</b>									
1. To exploit the growth potential of business sectors; increasing the usage and quality of recycled/secondary products.	+	+	+	Medium	GM wide	Long term	Increased employment opportunities and reduced levels of deprivation	The policy will help exploit the growth potential of the minerals sector and provide protection for minerals recycling / secondary aggregates processing sites.	
2. To encourage sustainable economic growth and assist in reducing the disparities of sub-regional economic performance	+	+	+	Medium	GM wide	Long term	Increased employment opportunities and reduced levels of deprivation	The policy would prevent the development that would have an unacceptable impact on an existing mineral working. It would thereby help ensure there is an adequate supply of materials to provide the infrastructure required to support Greater Manchester's economy.	
3. To develop and market Greater Manchester's image.	0	0	0	Medium	N/A	N/A		Unlikely to have any significant effects.	
4. To develop and maintain a healthy labour market.	+	+	+	Medium	GM wide	Long term		By protecting existing minerals sites and infrastructure, such as rail linked depots, the policy would help maintain a healthy labour market.	
<b>Social</b>									
5. To reduce the need to travel, improve choice and use of sustainable transport modes.	++	++	++	Medium	GM wide	Long term	Reduced congestion  Decreased carbon emissions.	The policy will provide protection to existing rail linked depots, wharves and canals in Greater Manchester and will thereby support the use of sustainable transport modes.	
6. To improve physical health and mental health and reduce health inequalities.	0	0	0	High	N/A	N/A		Unlikely to have any significant effects.	

7. To improve access to good quality affordable and resource efficient housing.	+	+	+	Medium	GM wide	Long term	Positive impact on quality of life.	The policy should help ensure that there are sufficient minerals to support the ambitious growth strategy for Greater Manchester.	
8. To enable groups and communities to contribute to decision-making, and to reduce social exclusion.	0	0	0	High	N/A	N/A		Unlikely to have any significant effects.	
9. To improve access to and use of basic goods, services and amenities for all groups.	0	0	0	High	N/A	N/A		The policy does not preclude the provision of improved services and facilities if there is an overriding need for such a development.	
<b>Environmental</b>									
10. To protect, enhance, manage and restore where appropriate, the rich diversity of cultural, built environment and archaeological assets and their settings.	0	0	0	Medium	N/A	N/A		Unlikely to have any significant effects.	
11. To protect, enhance, manage and restore where appropriate biodiversity, protected species, habitats and sites of geological importance.	0	0	0	Medium	N/A	N/A		Unlikely to have any significant effects.	
12. To protect and improve landscape and townscape character and accessibility.	0	0	0	Medium	N/A	N/A		Unlikely to have any significant effects.	
13. To protect and improve local environmental quality and reduce crime.	0	0	0	Medium	N/A	N/A		Unlikely to have any significant effects.	
14. To protect and improve the quality of controlled waters.	0	0	0	Medium	N/A	N/A		Unlikely to have any significant effects.	

15. To protect and improve air quality.	+	+	+	Medium	GM wide	Long term	Secondary impacts on health, particularly among those who suffer from respiratory illnesses	The policy will provide protection to existing rail linked depots, wharves and canals in Greater Manchester and will thereby support the use of sustainable transport modes as an alternative to transporting minerals by road.	
16. To restore and protect land and soil and to manage contaminated and potentially unstable land.	0	0	0	High	N/A	N/A		Unlikely to have any significant effects.	
17. To mitigate and adapt to climate change.	+	+	+	Medium	GM wide	Long term	Reduced secondary impacts of climate change, such as increased flood risk.	The policy will provide protection to existing rail linked depots and wharves in Greater Manchester and will thereby support the use of sustainable transport modes and help reduce greenhouse gas emissions.	
18. To minimise the risk of flooding and increase the use of SUDS.	0	0	0	Medium	N/A	N/A		Unlikely to have any significant effects.	
19. To ensure the prudent use of natural resources and the sustainable management and safeguarding of existing resources.	++	++	++	High	GM wide	Long term		The policy will prevent the sterilisation of mineral deposits by ensuring that development that would have an unacceptable impact on the continuation of a mineral working would only be permitted where the mineral working is no longer required or the need for the proposed development outweighs the need to continue the mineral working.	

20. To minimise the requirement for energy use, promote efficient use and increase the use of energy from renewable resources.	+	+	+	Medium	GM wide	Long term		The policy will provide protection to existing rail linked depots, wharves and canals in Greater Manchester and will thereby support the use of sustainable transport modes and support the objective of using energy efficiently.	
<b>Sustainability Summary</b>	<p>The policy on protecting existing minerals sites and infrastructure has the potential to have a positive impact on a number of sustainability objectives. In particular, by preventing the sterilisation of mineral deposits and sites essential for the sustainable transportation of minerals, the policy has the potential to have a major positive impact on the objectives relating to ensuring the prudent use of natural resources and improving use of sustainable transport modes. The policy would also have some positive impact on the objectives relating to protecting air quality; mitigating climate change; and promoting the efficient use of energy.</p> <p>By preventing development that would have an unacceptable impact on existing mineral workings and providing protection for minerals recycling / secondary aggregates processing sites, the policy should help ensure there is an adequate supply of materials to provide the infrastructure required to support Greater Manchester's economy. It is therefore envisaged that the policy would also have a positive impact on the economic objectives of exploiting the growth potential of business sectors; encouraging sustainable economic growth; and maintaining a healthy labour market.</p> <p>There are no negative or uncertain effects on the sustainability objectives.</p>								

**Key for effects**

++ major positive;    + minor positive;    0 neutral;    – minor negative;    – – major negative;    ? uncertain

Policy 11: Protecting Quarries Important for Maintaining Historic Buildings									
SA Objective	Timescale			Nature of Effect				Comments	Mitigation
	0 – 5 years	5 – 10 years	10+ years	Certainty	Scale	Permanence	Secondary, cumulative, synergistic		
<b>Economic</b>									
1. To exploit the growth potential of business sectors; increasing the usage and quality of recycled/secondary products.	+	+	+	Low	GM wide	Long term	Increased employment opportunities and reduced levels of deprivation	The policy will help exploit the growth potential of the minerals by providing protection to quarries that are important for maintaining historic buildings. There is however only limited certainty of this due to the fact that the study which will identify sites within Greater Manchester that provide stone for heritage purposes has not yet been completed. As a result, it is presently uncertain whether such sites are found within the sub-region.	
2. To encourage sustainable economic growth and assist in reducing the disparities of sub-regional economic performance	+	+	+	Low	GM wide	Long term	Increased employment opportunities.	The policy would prevent the development that would have an unacceptable impact on a quarry that is important for maintaining historic buildings. This should encourage sustainable economic growth through provision of adequate mineral reserves. There is however only limited certainty of this due to the fact that the study which will identify sites within Greater Manchester that provide stone for heritage purposes has not yet been completed. As a result, it is presently uncertain whether such sites are found within the sub-region.	

3. To develop and market Greater Manchester's image.	+	+	+	Low	GM wide	Long term	Improved perceptions of the area.  Maintenance of a sense of place.	The policy would protect quarries that supply minerals that are important for maintaining historic buildings. It would thereby help protect areas that contribute to the image of the sub-region. There is however only limited certainty of this due to the fact that the study which will identify sites within Greater Manchester that provide stone for heritage purposes has not yet been completed. As a result, it is presently uncertain whether such sites are found within the sub-region.	
4. To develop and maintain a healthy labour market.	0	0	0	High	N/A	N/A		Unlikely to have any significant effects.	
<b>Social</b>									
5. To reduce the need to travel, improve choice and use of sustainable transport modes.	+	+	+	Low	GM wide	Long term	Reduced congestion  Decreased carbon emissions.	By providing protection to quarries in Greater Manchester that are important for maintaining historic buildings, the policy could help reduce the need to import minerals into the sub-region and thereby have a positive impact on the sub-objective of minimising the transportation of minerals. There is however only limited certainty of this due to the fact that the study which will identify sites within Greater Manchester that provide stone for heritage purposes has not yet been completed. As a result, it is presently uncertain whether such sites are found within the sub-region.	
6. To improve physical health and mental health and reduce health inequalities.	0	0	0	High	N/A	N/A		Unlikely to have any significant effects.	

7. To improve access to good quality affordable and resource efficient housing.	0	0	0	High	N/A	N/A		Unlikely to have any significant effects.	
8. To enable groups and communities to contribute to decision-making, and to reduce social exclusion.	0	0	0	High	N/A	N/A		Unlikely to have any significant effects.	
9. To improve access to and use of basic goods, services and amenities for all groups.	0	0	0	High	N/A	N/A		The policy does not preclude the provision of improved services and facilities if there is an overriding need for such a development.	
<b>Environmental</b>									
10. To protect, enhance, manage and restore where appropriate, the rich diversity of cultural, built environment and archaeological assets and their settings.	++	++	++	Low	GM wide	Long term	Improved perceptions of the area.  Maintenance of a sense of place.	The policy would protect quarries that supply minerals that are important for maintaining historic buildings. The policy would thereby contribute to the protection of the significance of historic assets by ensuring there is a sufficient supply of minerals for their maintenance/repair. There is however only limited certainty of this due to the fact that the study which will identify sites within Greater Manchester that provide stone for heritage purposes has not yet been completed. As a result, it is presently uncertain whether such sites are found within the sub-region.	
11. To protect, enhance, manage and restore where appropriate biodiversity, protected species, habitats and sites of geological importance.	0	0	0	High	N/A	N/A		Unlikely to have any significant effects.	

12. To protect and improve landscape and townscape character and accessibility.	+	+	+	Low	GM wide	Long term	Improved perceptions of the area.  Maintenance of a sense of place.	The policy would protect quarries that supply minerals that are important for maintaining historic buildings. It would thereby have a positive impact on townscape character and the sub-objective of enhancing the appearance and setting of historic buildings and conservation areas. There is however only limited certainty of this due to the fact that the study which will identify sites within Greater Manchester that provide stone for heritage purposes has not yet been completed. As a result, it is presently uncertain whether such sites are found within the sub-region.	
13. To protect and improve local environmental quality and reduce crime.	+	+	+	Low	GM wide	Long term		The policy would protect quarries that supply minerals that are important for maintaining historic buildings. It would thereby help protect areas that contribute to the image of the sub-region. There is however only limited certainty of this due to the fact that the study which will identify sites within Greater Manchester that provide stone for heritage purposes has not yet been completed. As a result, it is presently uncertain whether such sites are found within the sub-region.	
14. To protect and improve the quality of controlled waters.	0	0	0	High	N/A	N/A		Unlikely to have any significant effects.	

15. To protect and improve air quality.	+	+	+	Low	GM wide	Long term	Reduced congestion  Decreased carbon emissions.	By providing protection to quarries in Greater Manchester that are important for maintaining historic buildings, the policy could help reduce the need to import minerals into the sub-region and reduce vehicular emissions associated with the transportation of minerals. There is however only limited certainty of this due to the fact that the study which will identify sites within Greater Manchester that provide stone for heritage purposes has not yet been completed.	
16. To restore and protect land and soil and to manage contaminated and potentially unstable land.	0	0	0	High	N/A	N/A		Unlikely to have any significant effects.	
17. To mitigate and adapt to climate change.	+	+	+	Low	GM wide	Long term	Reduced congestion  Decreased carbon emissions.	By providing protection to quarries in Greater Manchester that are important for maintaining historic buildings, the policy could help reduce the need to import minerals into the sub-region and help reduce greenhouse gas emissions associated with the transportation of minerals. There is however only limited certainty of this due to the fact that the study which will identify sites within Greater Manchester that provide stone for heritage purposes has not yet been completed. As a result, it is presently uncertain whether such sites are found within the sub-region.	
18. To minimise the risk of flooding and increase the use of SUDS.	0	0	0	Medium	N/A	N/A		Unlikely to have any significant effects.	

19. To ensure the prudent use of natural resources and the sustainable management and safeguarding of existing resources.	+ +	+ +	+ +	High	GM wide	Long term		The policy would ensure that developments that would have an unacceptable impact on a quarry that is important for maintaining historic buildings are only permitted where the mineral working is no longer required or the need for the proposed development outweighs the need to continue the mineral working. It will therefore reduce the likelihood of minerals being needlessly sterilised. The policy will also have a positive impact on the sub-objective of supporting the repair and re-use of existing buildings.	
20. To minimise the requirement for energy use, promote efficient use and increase the use of energy from renewable resources.	+	+	+	Low	GM wide	Long term	Reduced congestion  Decreased carbon emissions.	By providing protection to quarries in Greater Manchester that are important for maintaining historic buildings, the policy could help reduce the need to import minerals into the sub-region and help reduce greenhouse gas emissions associated with the transportation of minerals. There is however only limited certainty of this due to the fact that the study which will identify sites within Greater Manchester that provide stone for heritage purposes has not yet been completed. As a result, it is presently uncertain whether such sites are found within the sub-region.	

<p><b>Sustainability Summary</b></p>	<p>It is envisaged that Policy 11 would have a positive impact on a number of sustainability objectives. In particular, by protecting quarries that supply minerals that are important for maintaining historic buildings, the policy would contribute to the protection of the significance of historic assets by ensuring there is a sufficient supply of minerals for their maintenance/repair. The policy would therefore have a major positive impact on the objective of protecting, enhancing, managing and restoring the built environment and archaeological assets and some positive impact on the objectives relating to protecting and improving townscape character; improving local environmental quality; and developing the image of Greater Manchester.</p> <p>The policy would ensure that developments that have an unacceptable impact on a quarry that is important for maintaining historic buildings are only permitted where the mineral working is no longer required or the need for the proposed development outweighs the need to continue the mineral working. The policy would therefore have a major positive impact on the objective of ensuring the prudent use of natural resources and its sub-objective of supporting the repair and re-use of existing buildings and some positive impact on the economic objectives of exploiting the growth potential of business sectors and encouraging sustainable economic growth.</p> <p>By providing protection to quarries in Greater Manchester that are important for maintaining historic buildings, the policy could help reduce the need to import minerals into the sub-region. This would have a positive impact on the objectives relating to reducing the need to travel; protecting air quality; mitigating climate change; and promoting the efficient use of energy. There is however only limited certainty that the policy would have a positive impact on these objectives due to the fact that the study which will identify sites within Greater Manchester that provide stone for heritage purposes has not yet been completed and, as a result, it is presently uncertain whether such sites are found within the sub-region.</p> <p>There are no negative or uncertain effects on the sustainability objectives.</p>
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<b>Key for effects</b>					
++ major positive;	+ minor positive;	0 neutral;	– minor negative;	– – major negative;	? uncertain

Policy 12: Restoration and Aftercare									
SA Objective	Timescale			Nature of Effect				Comments	Mitigation
	0 – 5 years	5 – 10 years	10+ years	Certainty	Scale	Permanence	Secondary, cumulative, synergistic		
<b>Economic</b>									
1. To exploit the growth potential of business sectors; increasing the usage and quality of recycled/secondary products.	?	?	?	Low	GM wide	Long term		The impact of the policy on exploiting the growth potential of business sectors is difficult to appraise meaningfully due to potential afteruses being unknown.	
2. To encourage sustainable economic growth and assist in reducing the disparities of sub-regional economic performance	?	?	?	Low	GM wide	Long term		The impact of the policy on economic growth is difficult to appraise meaningfully due to potential afteruses being unknown.	
3. To develop and market Greater Manchester's image.	++	++	++	High	Local	Long term	Increased investment in the sub-region	Securing the restoration of sites can have a positive impact on Greater Manchester's image by preventing dereliction and blight and by delivering, for example, high quality built or natural environments.	
4. To develop and maintain a healthy labour market.	?	?	?	Low	GM wide	Long term		The impact of the policy on Greater Manchester's labour market is difficult to appraise meaningfully due to potential afteruses being unknown.	
<b>Social</b>									
5. To reduce the need to travel, improve choice and use of sustainable transport modes.	0	0	0	Medium	N/A	N/A		Unlikely to have any significant effect	

6. To improve physical health and mental health and reduce health inequalities.	+	+	+	Medium	GM wide	Long term	Improved quality of life	The restoration process itself may result in some impacts on amenity. The appropriate restoration of former mineral sites will nevertheless ensure a safe landform, where potential adverse emissions or run-off are satisfactorily dealt with.	
7. To improve access to good quality affordable and resource efficient housing.	?	?	?	Low	GM wide	Long term		The impact of the policy on access to housing is difficult to appraise meaningfully due to potential afteruses being unknown.	
8. To enable groups and communities to contribute to decision-making, and to reduce social exclusion.	+	+	+	High	Local	Medium term		Putting community liaison measures in place during the operation of the site will encourage wider involvement and enable communities to contribute to, and influence, decision-making and implementation.	
9. To improve access to and use of basic goods, services and amenities for all groups.	?	?	?	Low	GM wide	Long term		The impact of the policy on access to goods and services is difficult to appraise meaningfully due to potential afteruses being unknown.	
<b>Environmental</b>									
10. To protect, enhance, manage and restore where appropriate, the rich diversity of cultural, built environment and archaeological assets and their settings.	+	+	+	Medium	GM wide	Long term	Positive impact on perceptions of the area.	The policy specifies that the final landuse should provide for the enhancement of the quality or setting of historic assets and must be in accordance with the Key Planning and Environmental Criteria in Policy 1; which include the impact of the proposal on the historic environment and built heritage.	

11. To protect, enhance, manage and restore where appropriate biodiversity, protected species, habitats and sites of geological importance.	+	+	+	Medium	GM wide	Long term		The policy specifies that the final land use should provide for the enhancement of biodiversity assets, European sites and the ecological value of the site. The restoration of sites would offer the potential to create unique habitats. In addition, the supporting text to the policy makes reference to the potential contribution of restored mineral extraction sites to green infrastructure.	The policy has been appraised in two stages. Following the first appraisal, references to biodiversity assets, European sites and the ecological value of the site have been incorporated. This has strengthened the performance of the policy in relation to this objective and mitigation measures are therefore no longer proposed.
12. To protect and improve landscape and townscape character and accessibility.	++	++	++	High	Local	Long term	Improved image of the sub-region	The policy should ensure the restoration of minerals sites to prevent dereliction and blight. This would have a positive impact on landscapes and/or townscapes. It is also specified that the final land use should take account of the landscape setting of the site and provide for the enhancement of the quality of the landscape.	
13. To protect and improve local environmental quality and reduce crime.	+	+	+	High	Local	Long term	Improved image of the sub-region	The policy should ensure the restoration of minerals sites to prevent dereliction and blight. This would have a positive impact on local environmental quality.	
14. To protect and improve the quality of controlled waters.	+	+	+	Medium	GM wide	Long term	Potential secondary benefits for biodiversity	The appropriate restoration of former mineral sites will ensure a safe landform, where potential adverse emissions or run-off are satisfactorily dealt with. In addition, it is specified that the final land use should enhance the local environment; this would include the quality of nearby water bodies.	

15. To protect and improve air quality.	?	?	?	Medium	GM wide	Long term		The impact of the policy on air quality is difficult to appraise meaningfully due to potential afteruses being unknown. The restoration process itself is however likely to result in some air emissions. However, it is specified that the final land use should be in accordance with the Key Planning and Environmental Criteria in Policy 1; which include issues such as dust emissions.	Other policies in the district's Core Strategies will prevent unacceptable impacts on air quality.
16. To restore and protect land and soil and to manage contaminated and potentially unstable land.	++	++	++	High	Local	Long term	Potential secondary benefits for biodiversity  Potential secondary benefits for food security.	Restoring land is a key aim of aftercare schemes. The proposed use of phased restoration schemes and the provision of details on the financial provision to complete restoration schemes should ensure that schemes are implemented. Where the intention is to restore the land to agricultural uses, it is specified that the restoration techniques employed should ensure that land is capable of supporting such uses in the long term. The policy should therefore have a major positive impact on restoring land and soil.	
17. To mitigate and adapt to climate change.	?	?	?	Low	National	Long term		The impact of the policy on climate change is difficult to appraise meaningfully due to potential afteruses being unknown.	

18. To minimise the risk of flooding and increase the use of SUDS.	+	+	+	Medium	GM wide	Long term		The impact of the policy on the risk of flooding is difficult to appraise meaningfully due to potential afteruses being unknown. The supporting text to the policy does however refer to the potential contribution of restored mineral extraction sites to flood water storage. In addition, it is specified that the final landuse should be in accordance with the Key Planning and Environmental Criteria in Policy 1; which include flood risk management.	
19. To ensure the prudent use of natural resources and the sustainable management and safeguarding of existing resources.	0	0	0	High	N/A	N/A		Unlikely to have any significant effect	
20. To minimise the requirement for energy use, promote efficient use and increase the use of energy from renewable resources.	?	?	?	Low	National	Long term		The impact of the policy on the requirement for energy use is difficult to appraise meaningfully due to potential afteruses being unknown.	

<p><b>Sustainability Summary</b></p>	<p>Policy 12 should ensure the restoration of minerals sites to prevent dereliction and blight and requires the final land use to contribute towards the enhancement of the landscape. This would have a significant positive impact on the objectives of developing and marketing Greater Manchester's image; protecting and improving landscape and townscape character; and restoring and protecting land and soil. The restoration of extraction sites should ensure the creation of a safe landform, where potential adverse emissions or run-off are satisfactorily dealt with. As a result, it is anticipated that the policy would also have a minor positive impact on the objectives relating to physical and mental health and protecting and improving the quality of controlled waters.</p> <p>The policy provides for community liaison measures to be put in place during the operation of the site, including mineral extraction, restoration and final land use. The policy would therefore encourage wider community involvement and enable communities to contribute to, and influence, decision-making and implementation. As such, it would have a positive impact on the objective of enabling groups and communities to contribute to decision-making, and reducing social exclusion.</p> <p>The policy should ensure the restoration of minerals sites to ensure that potential derelict sites are brought into beneficial use and it is stipulated that the final land use should provide for the enhancement of the quality of the local environment. The policy would therefore have a positive impact on the objective to protect and improve local environmental quality. The incorporation of a specific reference to the final land use providing for the enhancement of the setting of historic assets should also ensure that the policy has some positive impact on the objective of protecting and enhancing the rich cultural, built environment. Similarly, the inclusion of a requirement for the final land use to provide for the enhancement of biodiversity assets, European sites and the ecological value of the site should ensure that the policy now has some positive impact on the objective relating to the protection, enhancement and management of biodiversity, protected species and habitats and the objective of protecting and enhancing the rich cultural, built environment.</p> <p>There are no predicted negative effects on the sustainability objectives. However, as the potential afteruses of sites are unknown, it is difficult to appraise the impact of the policy on a wide range of sustainability objectives. As such, it is concluded that the policy would have an uncertain impact on the objectives relating to the growth potential of business sectors; sustainable economic growth; a healthy labour market; access to housing; access to basic goods, services and amenities; air quality; climate change; and the requirement for energy use.</p>
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**Key for effects**

++ major positive;    + minor positive;    0 neutral;    – minor negative;    – – major negative;    ? uncertain