



**Cumbria County Council
Draft Minerals and Waste Local Plan**

**Strategic Flood Risk Assessment
Addendum Report**

March 2016

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1. Introduction

- 1.1. In February 2015, Cumbria County Council completed a Strategic Flood Risk Assessment (SFRA) Report as part of the Minerals and Waste Plan (MWLP), to assess the potential impacts that the proposed Minerals and Waste site allocations may have on current and future flood risk. This requirement is outlined in paragraph 100 of the National Planning Policy Framework (NPPF). The SFRA established which of the sites put forward for minerals and waste development within the MWLP may be affected by flooding.
- 1.2. In 2012 an initial consultation was held on the Local Plan, which included a 'call for sites' from minerals and waste operators. In February 2013, a Regulation 18 Preferred Options consultation was held, which included some additional sites, some amended site boundaries and also removed some sites further to those identified in 2012. In March to May 2015, a further Regulation 18 consultation was undertaken which again added, amended or removed sites.
- 1.3. In response to the Preferred Options consultation held in 2015, a small number of supplementary sites were put forward for consideration and revised information for some sites that been included in the original consultation was received. The supplementary sites and information submitted had not been subjected to a flood risk assessment.
- 1.4. This report provides information on the flood risk at each of the supplementary sites put forward. Following the consultation on the supplementary sites, only two were taken forward to the Regulation 19 draft of the MWLP – Roosecote Quarry and Kirkhouse Quarry; another site in that consultation (Kingmoor Road Recycling Centre) has had its boundary amended. This report should be read in conjunction with the original SFRA produced by Cumbria County Council, dated February 2015.

2. Supplementary Sites

- 2.1. Nine supplementary sites and changes to the boundary of two sites were put forward in response to the Preferred Options consultation carried out March to May 2015. Details of the proposed sites are set out in Table 1 below:

Table 1: Proposed Site Allocations

Site Reference	Site Name
S1	Roosecote Quarry
S2	Goldmire Quarry
S3	Distington Waste Management Facility and Former Landfill Site
S4	Flusco Waste Management Complex
S5	Hespin Wood Waste Management Complex
S6	South Walney former landfill
S7	Kirkhouse Quarry
S8	Blencowe Quarry
S9	Roan Edge Quarry
S10	Kirkby Slate Quarry
S11	Kingmoor Road Recycling Centre

- 2.2. Following receipt of the representations proposing the supplementary or revised sites, meetings were held between the County Council and each relevant operator, in order to discuss the proposals in more detail. As a result of this discussion, those elements of the proposals that sought to install solar panels on existing and former waste management sites were withdrawn (S3 Distington former landfill, S4 Flusco landfill complex, S5 Hespin Wood landfill complex and S6 South Walney former landfill). This left ten sites to be assessed.

3. Site Assessments

- 3.1. The remaining proposed sites have been considered by the Environment Agency, United Utilities and the Lead Local Flood Authority. Comments are included in Table 2.

Table 2: Site Assessments

Site Ref	Site Name	Flood Zone	Allocation Sought	Lead Local Flood Authority Response	EA Response	UU Response
S1	Roosecote Quarry, Barrow in Furness	1	Preferred Area for sand and gravel extraction.	Minimal risk of Surface Water flooding.	<p>The site is located in Flood Zone 1.</p> <p>No objection in principle to the allocation.</p> <p>However, any proposals coming forward will need to be supported by an adequate level of assessment at the planning application stage.</p>	<p>There is a rising main from Rampside skirting the terminal, which must be taken into account. We believe that this site may be a SSSI site, but not confirmed. There is also a private Pumping Station from the gas terminal on the outside of the perimeter of the site.</p>
S2	Goldmire Quarry, Barrow in Furness	1	Area of Search for limestone extraction.	Minimal risk of Surface Water flooding.	<p>The site is located in Flood Zone 1.</p> <p>No objection in principle to the allocation.</p> <p>However, any proposals coming forward will need to be supported by an adequate level of assessment at the planning application stage.</p>	<p>This location is un-sewered.</p>

Site Ref	Site Name	Flood Zone	Allocation Sought	Lead Local Flood Authority Response	EA Response	UU Response
S3	Distington waste management facility and former landfill site, Workington	1	<p>Increased area for waste management/treatment.</p> <p>Installation of solar panels on former landfill.</p>	No comment	<p>The site is located in Flood Zone 1.</p> <p>No objection in principle to the allocation.</p> <p>However, any proposals coming forward will need to be supported by an adequate level of assessment at the planning application stage.</p>	<p>There is no impact on the sewer network, however, there is the potential for increased trade effluent flows, which could impact on Parton WwTW.</p>
S4	Flusco waste management complex, Penrith	1	<p>Increased area for waste management/treatment within the Flusco site.</p> <p>Transfer of secondary aggregates production to Silver Fields Quarry from elsewhere on Flusco site (initial submission requested additional area in error).</p> <p>Installation of solar panels on landfill area.</p>	Minimal risk of Surface Water flooding.	<p>The site is located in Flood Zone 1.</p> <p>No objection in principle to the allocation.</p> <p>However, any proposals coming forward will need to be supported by an adequate level of assessment at the planning application stage.</p>	<p>The nearest combined sewer is approximately 700m away.</p>

Site Ref	Site Name	Flood Zone	Allocation Sought	Lead Local Flood Authority Response	EA Response	UU Response
S5	Hespin Wood waste management complex, Carlisle	1	<p>Increased areas for waste treatment for:</p> <ul style="list-style-type: none"> - Materials Recovery Facility and/or composting. - other waste treatment (thermal treatment plant proposed in initial submission). <p>Installation of solar panels on existing landfill area.</p> <p>Extension of time for landfill operations.</p>	Some areas of the site at risk of Surface Water flooding (1% probability).	<p>The site is located in Flood Zone 1.</p> <p>No objection in principle to the allocation.</p> <p>However, any proposals coming forward will need to be supported by an adequate level of assessment at the planning application stage.</p>	There are no sewers nearby.
S7	Kirkhouse sand and gravel quarry, Brampton	1, 2 and 3	<p>Area of Search for sand and gravel extraction.</p> <p>Inert landfill within existing quarry.</p> <p>Secondary aggregates production in existing quarry.</p>	No comment	<p>The majority of the site is located within Flood Zone 1. However, Milton Beck flows through the north of the site, which is located within Flood Zones 2 and 3.</p> <p>No objection in principle to the allocation.</p> <p>However, any proposals coming forward will need to be supported by an adequate level of assessment at the planning application stage.</p>	Nearest sewer approximately 500m away.

Site Ref	Site Name	Flood Zone	Allocation Sought	Lead Local Flood Authority Response	EA Response	UU Response
S8	Blencowe limestone quarry, Penrith	1	Area of Search for limestone extraction.	No comment	<p>The site is located in Flood Zone 1.</p> <p>No objection in principle to the allocation.</p> <p>However, any proposals coming forward will need to be supported by an adequate level of assessment at the planning application stage.</p>	The nearest sewer is approx. 260m away but appears to be foul only and is likely to be unsuitable to accept any surface water runoff.
S9	Roan Edge Quarry	1	<p>Area of Search for gritstone extraction to facilitate extension of inert waste landfill.</p> <p>Increased area for inert waste recycling for aggregates production facilitated by gritstone extraction.</p>	Minimal risk of Surface Water flooding.	<p>The site is located in Flood Zone 1.</p> <p>No objection in principle to the allocation</p> <p>However, any proposals coming forward will need to be supported by an adequate level of assessment at the planning application stage.</p>	The Roan Edge Quarry site (adjacent) has no sewers in the vicinity. The nearest sewer network is in Sedbergh or Grayrigg.

Site Ref	Site Name	Flood Zone	Allocation Sought	Lead Local Flood Authority Response	EA Response	UU Response
S10 (M14)	Kirkby Slate Quarry, Kirkby-in-Furness	1	Increased area to deposit mineral waste in order to facilitate development of M14.	Small area of Surface Water flood risk (1%) within existing quarry in centre of site.	<p>The site is located in Flood Zone 1.</p> <p>No objection in principle to the allocation.</p> <p>However, any proposals coming forward will need to be supported by an adequate level of assessment at the planning application stage.</p>	Potential to impact on Marshside Pumping Station; nearest sewers are at Chapels, should a connection be sought.
S11 (CA30)	Kingmoor Road recycling centre, Carlisle	1	Increased area for waste management	Small areas of Surface Water flood risk (1%) in northern part of site.	<p>The site is located in Flood Zone 1.</p> <p>No objection in principle to the allocation.</p> <p>However, any proposals coming forward will need to be supported by an adequate level of assessment at the planning application stage.</p>	Combined sewer is located outside proposed facility. Surface water sewer for potential discharge is located approx 25m away.

4. Conclusions and Recommendations

- 4.1. A considerable proportion of Cumbria is at risk of flooding, including sites being considered for allocation in the Minerals and Waste Local Plan. The flood risk arises from a number of sources including river flooding, coastal flooding, localised runoff, sewer and groundwater flooding.
- 4.2. All of the supplementary sites put forward, with the exception of one site, are located in areas of low flood risk (Flood Zone 1). Site S7 Kirkhouse Quarry has a small area covered by Flood Zone 2 and 3a, but the majority of site lies within Flood Zone 1 and the site is of sufficient size that higher risk areas can be avoided. Consequently, the principle of development of these sites/areas for minerals and waste development would pass the Sequential Test in relation to fluvial flooding. However, in accordance with national guidance, there is a need to consider the susceptibility of sites to other sources of flood risk; for example, a site that is entirely located within Flood Zone 1 may be prone to surface water flooding.
- 4.3. The majority of the sites will have some susceptibility to surface water flooding. It is expected that any applicant would need to provide detail of the use of sustainable urban drainage systems (SUDS) and be aware of this vulnerability on site. However, this is something that would be taken into account in more detail through the planning application process, where the individual District/Borough's Drainage team and the Environment Agency would be consulted to outline site specific issues and resolutions.
- 4.4. County Council policy is essential to ensure that the recommended development control conditions can be applied consistently at the planning application stage. This is essential to achieve future sustainability within the county with respect to flood risk management. The County Council will ensure that specific policies are in place relating to mineral extraction and waste management, which reduce the potentially adverse impacts of these on ground water, surface water, river and coastal conditions.

4.5. This SFRA addendum has been produced based on current understanding of flood risk and existing and available flood risk information. It is important that the SFRA is reviewed and updated at regular intervals in light of better flood risk information and emerging policy guidance.