

DOCUMENT REFERENCE RSAP 7

Copies of the representations that were received

*This is Appendix 2 to Document RSAP 5 the Pre-submission
Consultations Statement*

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001	Kingmoor Park Properties
002	Duddon Estuary Partnership
003	Allerdale Highways
004	euNetworks
005	Waste Recycling Group
006	Network Rail
007	Highways Agency
008	Coal Authority
009	Northumberland
010	Electricity NW
011	Aldingham Parish Council
012	Ponsonby and Gosforth Parish Councils
013	Environment Agency
014	Cumbria RIGS
015	Cemex
016	English Heritage
017	Carlisle and Eden Highways
018	Mr D Gallyer
019	Aggregate Industries
020	Natural England
021	Durham County Council
022	Steve Balogh
023	LDNPA
024	Energy Solutions WRG
025	National Trust
026	Stephens Associates for Burlington Slate
027	Stephens Associates for Holker Estates
028	Allerdale Borough Council
029	Barrow Borough Council

From: Tony Goddard [Tony.Goddard@KingmoorPark.co.uk]

Sent: 31 October 2011 10:10

To: Evans, Richard G

Cc: Brett, Sue A; Ross Nicolson

Subject: RE: Minerals and Waste development Framework

Richard

Thank you for your email. I confirm my continued interest in developing an energy from waste plant at Kingmoor Park.

Regards

Tony Goddard
Chief Executive



Kingmoor Park Properties Ltd,
The Marketing Suite,
Unit D, Baron Way,
Carlisle,
Cumbria,
CA6 4SJ
Tel: (01228) 674114
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<http://www.kingmoorpark.co.uk>

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From: Evans, Richard G [mailto:Richard.Evans@cumbria.gov.uk]

Sent: 31 October 2011 09:52

To: Tony Goddard

Cc: Brett, Sue A

Subject: Minerals and Waste development Framework

Tony,

Thanks for the email. I don't think it's essential for you to make any representations although it could be helpful if you could confirm your continued intentions re Kingmoor Park East for an energy from waste plant in Policy 4.

Richard Evans

From: Richard Scott [richard@thescotts-beckside.co.uk]
Sent: 26 October 2011 09:22
To: Evans, Richard G; mwdf@cumbria.gov.uk
Cc: Wain, Jenny L; Pearson, Paul T
Subject: MWDF Reg 27 consultations - Duddon Estuary Partnership

Dear Richard,

I have received the letter (ref RGE/P334-26) about the re-visit to the site allocation policy, addressed to Jack Park, the previous chair of the Duddon Estuary Partnership (DEP). I succeeded Jack as chair some years ago, and my correct address is:

Mr Richard Scott
Red Gables, Beckside
Pennington
Ulverston
LA12 7NX

If this communication has come to me as chair of DEP, this needs to be amended, as I will be succeeded by Brian Crawford of Millom Council at the next DEP meeting.

The matter in question appears to fall outside the area of interest of the DEP which stops at the mid-point of Walney Island, unless the area of search includes areas to the North of Jubilee Bridge and Sandy Gap. If the area of search does include places such as Sandscale or North Walney, there will be considerable public concern.

I hope this clarifies the position, and hope that if there are any matters of interest to DEP we can have more information to hand by our next meeting in mid-November, in which case it would be simpler to channel it through Paul Pearson and Jenny Wain.

Yours sincerely

Richard Scott

Chair, Duddon Estuary Partnership

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Mineral and Waste Development Framework Consultation Response

All proposals submitted would be considered on their individual merits at the time of application.

Consideration has been given to the accessibility of these sites by road, rail and sea, but in all cases, they would only be considered as suitable dependant on anticipated volume of traffic and the suitability of that volume on the local road network. This would include the size and numbers of vehicles and also the proposed routes for large vehicles. Until proposals for each site are put forward, the Highway Authority are unable to comment definitively as to the final suitability.

Any sites that have a detrimental effect on highway safety and local communities, and without an appropriate standard of access, would be deemed unsuitable.

Comments regarding individual sites and their considered suitability follows.

AL03 Oldside, Workington

This site is considered to be one of the preferable sites. It is on a brownfield site, has a good link to the main road network on the A596 and is away from residential properties. It is easily accessible by sea being next to the Port of Workington and is close to the railway line at Workington.

However, even though the road network has capacity for increases of heavy vehicles to this area, they will come from one of two directions which both have inappropriate junctions. One being the A596/A66 at Ramsay Brow in Workington, the other being the A596/A594 junction at Netherhall Corner in Maryport. Mitigation measures would be required at both of these points before highways would be satisfied with regard to safety.

AL08 Lillyhall Waste Treatment Centre

This site is adjacent to the existing landfill site and has good connection to the main highway network. It could easily be accessed by rail and sea by the use of HGV's from Workington using the existing infrastructure. If there is to be a large increase in numbers of vehicles, there would be a need for highway improvements in some areas.

As this site is next to the A66 trunk road, the Highways Agency may also have an interest in this.

AL17 Solway Road, Workington

This site already has approval for a household waste recycling site and access improvements to serve this are being negotiated.

AL18 Port of Workington

This site is considered to be one of the preferable sites. It is on a brownfield site, has a good link to the main road network on the A596 and is away from residential properties. It is easily accessible by sea being next to the Port of Workington and is close to the railway line at Workington.

However, even though the road network has capacity for increases of heavy vehicles to this area, they will come from one of two directions which both have inappropriate junctions. One being the A596/A66 at Ramsay Brow in Workington, the other being the A596/A594 junction at Netherhall Corner in Maryport. Mitigation measures would be required at both of these points before highways would be satisfied with regard to safety.

AL29 Auction Mart Cockermouth

The site has good links to the main highway network as it is served by the A66 Trunk Road. The Highways Agency may also have an interest in this.

AL31 Lillyhall Landfill Site, Workington

This site is adjacent to the existing landfill site and has good connection to the main highway network. It could easily be accessed by rail and sea by the use of HGV's from Workington using the existing infrastructure. If there is to be a large increase in numbers of vehicles, there would be a need for highway improvements in some areas.

As this site is next to the A66 trunk road, the Highways Agency may also have an interest in this.

AL32 Safeguarding area, Rail Sidings, Siddick

This site has a good link to the main road network on the A596 and is away from residential properties. It is easily accessible by sea being next to the Port of Workington and is close to the railway line at Workington.

However, even though the road network has capacity for increases of heavy vehicles to this area, they will come from one of two directions which both have inappropriate junctions. One being the A596/A66 at Ramsay Brow in Workington, the other being the A596/A594 junction at Netherhall Corner in Maryport. Mitigation measures would be required at both of these points before highways would be satisfied with regard to safety.

AL34 Lillyhall Industrial Estate, Workington

This site is close to the existing landfill site and has good connection to the main highway network. It could easily be accessed by rail and sea by the use of HGV's from Workington using the existing infrastructure. If there is to be a large increase in numbers of vehicles, there would be a need for highway improvements in some areas. Access would only be considered via Pittwood Road.

As this site is next to the A66 trunk road, the Highways Agency may also have an interest in this.

AL35 Risehow Industrial Estate Maryport

The site is close to the strategic road network and occupies a site served by an existing industrial estate. There may be a requirement for highway improvements to the A596 depending on proposed traffic levels.

M06 Overby Quarry, Aikshaw

There has already been an extension granted on this site for which extensive highway improvement works were carried out. If this is to be extended further and the life of the quarry prolonged, then contributions towards future maintenance of the highway network would be required.

M24 Derwent Howe Slag Bank, Derwent Howe, Workington

Ongoing, with decent access for present operations. Downside is that with the exception of 1 route, all access by road is via residential areas, which means any increase to the volume being carried by road would have major implications. Good access by rail and sea.

From: Debbie Cant [debbie.cant@eunetworks.com]
Sent: 01 November 2011 14:00
To: Evans, Richard G
Subject: Cumbria Minerals and Waste Development Framework

Attachments: Cumbria County Council - 24102011.pdf

Dear Richard,

Thank you for your recent letter, a copy of which is enclosed for easy reference.

Please be advised that euNetworks Fiber UK Limited plant is not be affected by your proposed work, nor do we have any network in the Cumbria area, therefore no strategic additions to our existing network are envisaged in the immediate future in this area.

I trust this explains that we will not be involved in your project and welcome you to contact us should you wish to discuss.

Kind regards

Debbie Cant
Wayleave Manager
For and on behalf of the UK Operations Team

ALL PLANT ENQUIRIES AND DIVERSIONARY REQUESTS SHOULD BE ADDRESSED BY EMAIL TO THE OPERATIONS TEAM AT fibreuk@eunetworks.com , WITH A PLAN AND FULL POSTAL ADDRESS OF YOUR ENQUIRY, THANK YOU

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For more information about euNetworks visit www.eunetworks.com or for details of our companies including euNetworks Fiber UK Ltd visit www.eunetworks.com/companies

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From: Ian Gorton [Ian.Gorton@wrg.co.uk]

Sent: 05 December 2011 16:12

To: ECE - Minerals and Waste Development Framework

Cc: David Harker; David Molland; Matthew Hayes; Nicholas Blake

Subject: WRG Comments Regulation 27 Consultation - Site Allocation Policies & Proposals Map

Importance: High

Attachments: Microsoft Word - REG 27 - Site Alloc Policies & Map JC070210_CCC.PDF; Microsoft Word - Reg 25 Comments Form FINAL Response_JC151009.pdf; Letter re Reconsultation Site allocations DPD Cumbria.doc

Dear Richard,

Please find attached comments on behalf of Waste Recycling Group to the above re-consultation (third attachment). The two other attachments are WRG's previous comments to earlier rounds of consultation.

I would be grateful for receipt of this e-mail.

Yours sincerely,

Ian Gorton

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Cumbria County Council
Environment Directorate
County Offices
Kendal
LA9 4RQ

Direct line: 01925 847500

Direct Fax: 01925 824723

email: Karen.quinn1@wrg.co.uk

31 October 2011

Our ref: KQ/Sept/Let/Address

Dear Mr Evans,

Re: Waste Recycling Group a/c

We have recently received items of mail from you which have been sent the now closed WRG office at Barton House, Darland Lane, Lavister.

Can please alter your records to show that any correspondence relating the above account number should be sent to our new offices at the address below:

Waste Recycling Group
Suite D, Darwin House
414 The Quadrant
Birchwood Park
Birchwood
Warrington
WA3 6FW

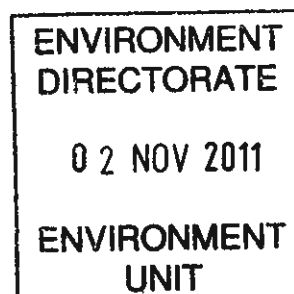
All invoices should still be sent to our payments centre at Doncaster, their address can be found at the bottom of all purchase orders.

I trust the above is self-explanatory; however should you require any further information please do not hesitate to contact me.

Yours faithfully,

A handwritten signature in black ink, appearing to read "KQuinn".

Karen Quinn
Office Manager



Waste Recycling Group – North Western Division
Suite D, 414 The Quadrant, Birchwood Park, Warrington, WA3 6FW
Tel: 01925 847500 Fax: 01925 824723 Web Site: <http://www.wrg.co.uk>



Richard Evans
Cumbria County Council
Environment Unit
County Offices
Kendal
LA9 4RQ

Direct line: 01925847500
Direct Fax:

email: ian.gorton@wrg.co.uk

5th December 2011

Our Ref: IG/WRG/CUMBRIA/REPS/RECON

Dear Mr Evans

**SITE ALLOCATIONS POLICY 6 – LOW LEVEL RADIOACTIVE WASTE
SITE AT LILLYHALL (REFERENCE AL31)**

WRG's Lillyhall site has been identified as a site that is potentially suitable for a resource recovery park, including waste treatment, recovery and disposal facilities. Established facilities already exist at the site including a waste treatment centre, materials recycling with co-located hazardous and non-hazardous landfill sites.

WRG draws the Waste Planning Authority's attention to the comments made in the Regulation 25 consultation response (copy attached). The concerns identified about the methodology for identifying the Sellafield sites (both CO36 – Land within Sellafield and CO32 – Land adjacent to Sellafield identified as the reserve site still remain in the Regulation 27 re-consultation. WRG still consider that the negative scoring associated with the two Sellafield sites is clearly overridden by the proximity to the waste arisings.

Whilst WRG understand the preference of Cumbria County Council that wastes be managed within the Sellafield complex it is important that the Site Allocations document now identifies a sustainable and deliverable solution. WRG consider it to be a very risky position for the County Council to adopt and provides no security that a disposal facility will be delivered in a timely manner. WRG considers that there is an urgent need to identify an alternative route for very low level wastes derived from decommissioning works in accordance with latest National Policy. An alternative site be identified which is the best solution from a sustainability perspective and importantly is deliverable.

Waste Recycling Group – North Western Division
Suite D, 414 The Quadrant, Birchwood Park, Warrington, WA3 6FW
Tel: 01925 847500 Fax: 01925 847549 Web Site: <http://www.wrg.co.uk>



Paragraph 3.13 of the Regulation 27 document states that it is particularly important that facilities are provided, within Cumbria, and throughout the UK, to divert the sub-category of Very Low Activity High Volume Wastes (or Very Low Level Waste - VLLW) away from the Repository. The volumes of these wastes will increase significantly as nuclear sites are decommissioned.

The 2011 UK LLW Strategic Review is clear that very large volumes of HV-VLLW which will exceed current disposal capacity will arise from the decommissioning of nuclear sites in West Cumbria, such as the Sellafield site, and will require new fit-for-purpose disposal facilities. Despite the lack of a detailed assessment of feasibility, land within the Low Level Waste Repository site near Drigg (CO35) and land within the Sellafield site (CO36) are included in Site Allocations Policy 6 for potential additional disposal facilities. In contrast, the Lillyhall Landfill Site is not an allocated site and is identified as another site considered. Given that in accordance with Regional Spatial Strategy Policy EM 13, in considering any proposals for new facilities, preference should be given to using established wastes sites, WRG considers that the Lillyhall Landfill Site, which has a Permit from the EA for the disposal of HV-VLLW, should have been included in Site Allocations Policy 6 for the disposal of HV-VLLW. This would accord with the 2011 UK LLW Strategic Review.

UK Government policy encourages the use of a wide range of waste routes for the long term management of LLW, in order to ensure the most effective use of the limited remaining disposal capacity at the Low Level Waste Repository (LLWR). Paragraph 5 of the policy states that with regard to LLW and HV-VLLW disposal to landfill, Government sees no reason to preclude controlled burial of radioactive waste from nuclear sites from the list of options to be considered in any options assessment, provided the necessary safety assessments can be carried out to the satisfaction of the environmental regulators. This supersedes paragraph 117 of Cm2919 (Ref 2). In accordance with national policy objectives, the availability of such landfill routes would help to ensure that disposal capacity at the LLWR is only used for wastes that warrant a more highly engineered disposal solution. This could significantly extend the operational life of the recent vault constructed at the LLWR and potentially the lifetime of this specialised radioactive waste disposal facility.

WRG believe that Lillyhall should therefore be considered a deliverable disposal solution which scores highly when assessed alongside the currently identified preferred and reserve sites for very low level radioactive wastes.

WRG question the methodology used to identify both 'CO36 – Land within Sellafield and CO32 – Land adjacent to Sellafield, identified as the reserve site'. Whilst we appreciate the subjective nature of the site appraisal work, it is apparent that a number of Site Selection Criteria have still been overlooked and/ or misjudged. The site appraisal relies heavily upon the one factor that the site adjoins the site where decommissioning waste is to be generated but does not adequately consider other factors, most importantly the site's deliverability, and does not adequately compare the sustainability of this site against others.

Waste Recycling Group Limited

Ground Floor West, 900 Pavilion Drive, Northampton Business Park, Northampton. NN4 7RG

Tel: 01604 826 200 Fax: 01604 826 201 (General) www.wrg.co.uk



WRG suggests that the scoring of the site should be revisited and the assessment of the CO32 site be reconsidered in a clear and transparent manner alongside other alternative sites ahead of the Site Allocation Policies and Proposals Map being finalised. These comments still stand.

The NDA identifies a need for fit for purpose management of HV-VLLW in their April 2011 Strategy and state that following application of the waste hierarchy use of the most appropriate and proportionate disposal option should be sought, including diverting waste away from the LLWR. The NDA references further discussion of alternative disposal options in the UK Nuclear Industry LLW Strategy which amongst other options (including the development of disposal facilities at or adjacent to nuclear licensed sites) identifies the option of disposal of HV-VLLW to landfill type facilities. The UK 2011 Low Level Waste Strategic Review (a material consideration) highlights the disposal of VLLW and LLW to specified landfill as one of the options that can be considered for wastes with low levels of radioactivity and includes a summary of key infrastructure for the management of the UK's LLW which identifies the Lillyhall Landfill Site as a potential facility for the disposal of HV-VLLW.

The development of the Lillyhall Landfill Site to accept HV-VLLW from nuclear sites is consistent with the identified need for alternative, fit-for-purpose disposal solutions for such lower activity wastes. Adequate disposal capacity is available to accommodate a significant proportion of the forecast arisings of HV-VLLW from Sellafield decommissioning. The site is underlain by Quaternary clays and other sediments, which provide an effective natural barrier to the migration of radio-nuclides. The site is at sufficient elevation that it will not be affected adversely by the processes of coastal erosion and sea-level rise. A small number of disposals of radioactive waste have been made to the site previously under Exemption Orders relating to the Radioactive Substances Act 1993, including Naturally Occurring Radioactive Material (NORM) produced by the oil and gas industry. The site therefore has procedures for and experience in dealing with radioactive wastes. Following the receipt of a positive opinion from the EC under Article 37 of the Euratom Treaty, the Environment Agency has issued a Permit to WRG under the Environmental Permitting Regime 2010 for the disposal of HV-VLLW to the Lillyhall Landfill Site.

WRG's position is that to make the Site Allocations DPD sound there is a need to revisit policy 6 to allow for much more flexibility within the policy and to allow for deliverability of a policy solution that meets the requirements of the nuclear industry and for a solution that does not prejudice the void of the Drigg Repository being filled with very low level radioactive material as is the risk with the current policy 6 as currently worded. The VLLW material could quite feasibly be dealt with at Lillyhall Landfill as it is a site available, deliverable and sustainable as a solution for dealing with VLLW material. This also accords with National Policy.



Yours sincerely

Ian Gorton
Waste Recycling Group

COMMENTS FORM

REGULATION 25 CONSULTATION CUMBRIA MINERALS AND WASTE DEVELOPMENT FRAMEWORK DRAFT SITE ALLOCATIONS POLICIES

COMMENTS NEED TO BE RECEIVED BY THURSDAY 15TH OCTOBER 2009

ALLERDALE		
Commenting on: site	Response – tick box	If you disagree please say why .
AL 3 Oldside, Workington	Agree <input type="checkbox"/> Disagree <input type="checkbox"/>	
AL 5 St Michael's Park, Workington	Agree <input type="checkbox"/> Disagree <input type="checkbox"/>	
AL 8 Lillyhall waste treatment centre, Workington.	Agree <input checked="" type="checkbox"/> Disagree <input type="checkbox"/>	
AL 17 Solway Road, Workington	Agree <input type="checkbox"/> Disagree <input type="checkbox"/>	
AL 18 Port of Workington	Agree <input type="checkbox"/> Disagree <input type="checkbox"/>	
AL 29 Auction Mart, Cockermouth	Agree <input type="checkbox"/> Disagree <input type="checkbox"/>	
AL 30 Innovia, Wigton	Agree <input type="checkbox"/> Disagree <input type="checkbox"/>	
AL 31 Lillyhall landfill	Agree <input checked="" type="checkbox"/> Disagree <input type="checkbox"/>	See comments associated with Site CO32 - Land adjacent to Sellafield Site, Seascale.

ALLERDALE		
Commenting on: site	Response – tick box	If you disagree please say why .
AL 32 Siddick (safeguarding for potential rail siding)	Agree <input type="checkbox"/> Disagree <input type="checkbox"/>	
AL 34 Part of former Alcan complex, Warrington	Agree <input type="checkbox"/> Disagree <input type="checkbox"/>	
AL 35 Risehow Industrial Estate, Flimby	Agree <input type="checkbox"/> Disagree <input type="checkbox"/>	
M 6 Land between Overby and High House quarries	Agree <input type="checkbox"/> Disagree <input type="checkbox"/>	
M 24 Derwent Howe slag bank (safeguarding for secondary aggregates)	Agree <input type="checkbox"/> Disagree <input type="checkbox"/>	
Mineral Safeguarding Areas	Agree <input type="checkbox"/> Disagree <input type="checkbox"/>	

BARROW		
Commenting on: site	Response – tick box	If you disagree please say why .
BA 2 Ormsgill Yard extended.	Agree <input type="checkbox"/> Disagree <input checked="" type="checkbox"/>	<p>Site BA2 - Ormsgill Yard, Walney Road, Barrow-in-Furness</p> <p>Waste Recycling Group welcomes the identification of our site at Ormsgill Yard, Walney Road, Barrow-in-Furness as one of the preferred sites. However given the need for waste treatment facilities throughout Cumbria, and the apparent paucity of sites in and around Barrow-in-Furness, we request that it is made clear that the site is identified for the range of waste treatment facilities including materials recycling facility, mechanical biological treatment facility, bulking facility and in-vessel composting. There is commentary within the text of the Site Appraisal that any new proposals will be dealt with at the Planning Application stage however it is important that clarity is provided at the MWDF Site Allocations stage.</p> <p>Waste Recycling Group accept that the detailed proposal would form part of a planning application with accompanying Environmental Impact Assessment but the site should be identified for the full range of waste treatment facilities.</p> <p>Waste Recycling Group therefore request that the site be added to the list within 'Site Allocation Policy 2'.</p>
BA 10 Goldmire quarry for landfill.	Agree <input type="checkbox"/> Disagree <input checked="" type="checkbox"/>	<p>Site BA10 – Goldmire Quarry, Thwaite Flat</p> <p>BA10 is identified as the only site within the south of Cumbria to provide additional non-hazardous landfill capacity. The site was not included within earlier rounds of consultation. Waste Recycling Group disagrees with the allocation as a preferred site as this is inappropriate for the uses identified.</p> <p>When considering the potential acceptability of Goldmire Quarry it is important to firstly refer back to the Inspectors Report of 1997 into the now time expired Cumbria Minerals and Waste Local Plan 1996 -2006. At paragraph 6.12.41 of that report it states that “Despite need for additional landfill capacity, no satisfactory sites have been identified. Should a satisfactory site not be found the result will be a dependence on transfer loading to landfill sites elsewhere in the County, or outside, with the associated environmental and financial costs.”</p> <p>At paragraph 6.17.2 it states that “The County</p>

BARROW		
Commenting on: site	Response – tick box	If you disagree please say why .
		<p>Council accepts that it would be desirable to identify a site for the disposal of non-inert waste in the Furness area for the long term. Moreover, it agrees that the 'proximity principle' is an important principle for sustainable waste management. However, there is not sufficient evidence to allocate Goldmire Quarry with confidence at this time." The report goes on to state that "The position will not be assisted by attempting to allocate sites, where there is no clear evidence that they can or will be developed, or where significant planning constraints remain unresolved".</p> <p>Covering the specifics of the Goldmire Quarry site, the salient points of the Inspectors Report are that:</p> <p>6.18.2 "The Council recognises that it would be desirable to allocate sites in the Plan for future landfill in Furness. However, it says, and I agree, that there is little benefit in identifying sites unless there is a realistic prospect that they can be developed and that they are likely to be available within a reasonable timescale. Although landfilling in some parts of the Quarry may be feasible at the moment, it contains reserves of mineral, mainly below the existing floor. It is not clear that these will be worked within the Plan period."</p> <p>6.18.3 "In the absence of a proposal it is difficult to assess the landscape and visual implications of landfill sites. In addition, the Barrow-in-Furness Local Plan identifies the Goldmire Valley as an area of Special Landscape Value (a local designation) and most of the Quarry lies within an area of local natural history interest. Furthermore, the road access is not ideal. There remains, also, the difficulty of constructing a liner up a steep rockface, necessary to protect a minor aquifer over which the Quarry is located. On this basis, I agree with the Council that it is sensible not to include Goldmire Quarry as a potential landfill site in the Plan. If it were included, then I believe it might create a false sense of security, and inhibited other proposals from coming forward. The Council indicates, and I see no reason to disagree, that the Quarry should probably be acceptable for developments ancillary to landfill, possibly including composting".</p> <p>6.18.5 "In summary, I agree that the Plan should not identify Goldmire Quarry as suitable for landfill. Before this can be done, the mineral reserves</p>

BARROW		
Commenting on: site	Response – tick box	If you disagree please say why .
		<p>would have to be won and it will have to be demonstrated that any operation has a reasonable prospect of satisfying the criteria embodied in the relevant policies of the development plan.”</p> <p>The decision to identify Goldmire Quarry within this latest round of consultation is somewhat perplexing, and it is unclear why the site has now become to be considered acceptable ‘in principle’. This is especially given the position of the Head of Environment for Cumbria County Council as set out within the Report to the May 09 Development Control and Regulation Committee into the recent Bennett Bank planning application (recommended that planning be granted). At paragraph 2.18 of that report it states that “No alternative landfill sites have been identified since the last major extension at Bennett Bank was granted, on appeal, in 1996”. At paragraph 2.20 it comments that “It was suggested in the course of the discussion at the last committee that it must be possible to find an alternative landfill site to replace Bennett Bank. However, in the period since the last major extension of Bennett Bank was brought forward in the mid 1990’s the County Council has produced two planning policy documents, the Minerals and Waste Local Plan and the Core Strategy of the new Minerals and Waste Development Framework. Neither of these was able to identify a site for non-hazardous landfill (Goldmire Quarry was put forward under the MWLP but rejected by the Inspector at the Plan Inquiry).</p> <p>The inclusion of Goldmire Quarry at this stage is a reactive decision to the refusal of the Bennett Bank planning application, and the recognised need for additional non-inert landfill capacity within the south of the County. It is unclear to what extent a landfilling proposal would sterilise consented minerals reserves, nor have the technical issues identified above been resolved to a degree to merit the inclusion of this site as the only landfill within the south of the county. Further details on this are provided below.</p> <p>National Planning Policy</p> <p>Planning Policy Statement (PPS) 10: Planning for Sustainable Waste Management at paragraph 2 states that positive planning has an important role in delivering sustainable waste management: by providing sufficient opportunities for new waste management facilities of the right type, in the right</p>

BARROW		
Commenting on: site	Response – tick box	If you disagree please say why .
		<p>place and at the right time. Waste Recycling Group contest that Goldmire Quarry is neither in the right place, nor could it be delivered at the right time.</p> <p><i>A site in the right place?</i></p> <p>Goldmire Quarry is a deep and narrow limestone quarry and a detailed technical assessment would be needed to establish whether landfilling would be practicable and commercially viable.</p> <p>There are a number of significant technical issues with the site which introduce a substantial degree of uncertainty as to the deliverability of the site.</p> <p>The site is located on a Minor Aquifer of local significance and the impact of potential long-term pollution must be carefully assessed. The Environment Agency Regulatory Guidance Series, No LFD 1 details that there may be Minor Aquifer situations where groundwater resources have a particular local significance (often supporting local abstractions), and that objections may be sustained from the Environment Agency. The strict requirements of the Landfill Directive require the installation of a robust geological barrier, an artificial sealing liner and active management control systems. In this area the limestone is known to be massive and fissured so a robust geological barrier will be essential. This is particularly relevant to this site given the apparent lack of engineering clay reserves, availability of suitable material to create a suitable sub-base and establish stable gradients within this quarry prior to placing engineering materials. These issues will call into question the deliverability of the development at this site.</p> <p>Access constraints to the site are also widely accepted, in itself introducing significant planning risk to the successful deliverability of this site through the planning system.</p> <p><i>Site at the right time?</i></p> <p>The only permitted landfill capacity within the south of the county is at Bennett Bank. The site has a consented life until December 2010, however it is anticipated that remaining void would be fully utilised by circa June 2010. There is a demonstrable need for landfill capacity, with the recently adopted Core Strategy identifying a need for an additional 2 million cubic metres of capacity in addition to the void space remaining. There is a</p>

BARROW		
Commenting on: site	Response – tick box	If you disagree please say why .
		<p>particular shortfall in the south of the County. Maximising the potential of Bennett Bank to meet this need is the most acceptable and practicable option. The likely significant technical constraints with the Goldmire Site would hinder its timely deliverability, and could certainly not be available to meet this need upon the expiry of the Bennett Bank planning permission. The resultant outcome would be a shortfall in void over the next 4-5 years. The choice is not Goldmire Quarry or Bennett Bank, it is Bennett Bank or transporting wastes considerable distances, including across administrative boundaries to Lancashire.</p> <p>Regional Planning Policy</p> <p>The North West of England Plan Regional Spatial Strategy to 2021 (RSS) provides a framework for development and investment over the next fifteen to twenty years. The RSS at Policy EM13 states that “In considering proposals for waste management facilities (including additional landfill capacity) the ability of existing established sites to meet the needs of the region / sub region should be fully explored. Wherever possible such sites should be used in preference to other sites where waste management activities have not been previously located...”</p> <p>A presumption should therefore be offered to Bennett Bank as the existing strategic landfill site within the south Cumbria area. Bennett Bank has been excluded on application specific details which are currently subject to a Section 78 appeal. Goldmire Quarry should not be promoted above, and as an alternative to Bennett Bank, until that appeal has been heard and the specifics of the development fully considered.</p> <p>Sub-Regional Policy</p> <p>Cumbria Minerals and Waste Development Framework Generic Development Control Policies</p> <p>Policy DC2 sets out the general criteria against which applications will be considered. Minerals and Waste proposals are required to demonstrate that (amongst others); issues of ground stability have been addressed, consideration to the extent that adverse effects can be controlled through sensitive siting and design. There are significant environmental issues with the Goldmire site and considerable uncertainty over its deliverability within the required timescales.</p>

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Commenting on: site	Response – tick box	If you disagree please say why .
		<p>Local Policy</p> <p>Barrow Borough Local Plan Review.</p> <p>Goldmire Valley is designated as a Local Landscape whereby development that would be detrimental to their distinctive character as Local Landscapes will not be allowed. This matter was raised at the previous Minerals and Waste Local Plan Inquiry. This remains a key issue. Goldmire Valley is also within an area of Local Natural History which requires special protection, again discussed at the previous Inquiry when the site was dismissed. The scoring criteria adopted by the Council in their site selection process does not accurately reflect this position.</p> <p>Is the Plan Sound?</p> <p>In conclusion, and having regard to the above, it is important to consider whether the Development Plan Document is 'sound'. Planning Policy Statement 12 states that "To be "sound" DPDs should be justified and effective and consistent with National Policy. 'Justified' means that the document must be founded on a robust and credible evidence base and the most appropriate strategy when considered against the reasonable alternatives. 'Effective' means that the document must be deliverable, flexible, able to be monitored.</p> <p>Taking each in turn it is clear that there are failings with the proposed allocation of Goldmire Quarry, with its inclusion resulting in the Plan being considered to be unsound. Its inclusion is not 'justified' as the reasonable, and preferable alternative site at Bennett Bank Landfill has not been correctly considered. Bennett Bank has been discounted not because the site isn't acceptable 'in principle', but because an application was refused against officer recommendation and is currently subject to a s78 appeal. The now inclusion of Goldmire Quarry is a reaction to that situation, without first having regard to the credible evidence base. Secondly, as demonstrated above, the Plan would not be 'effective' as this allocation is unlikely to be deliverable, and certainly not within the required timescales, and nor does the identification of this site alone provide for the required flexibility to meet landfill requirements in the south of the county.</p> <p>In conclusion, Goldmire Quarry should be discounted from further consideration due to its</p>

BARROW		
Commenting on: site	Response – tick box	If you disagree please say why .
		clear failings. It's continued inclusion as the only site providing landfill capacity within the south of the county would result in the Plan being unsound. Site allocation BA23 should not be discounted from consideration as a suitable site to meet an identified need, until such time as the application specific matters of the proposed Bennett Bank extension have been considered through the s78 appeal process. Bennett Bank is an existing landfill site, benefiting from associated infrastructure and landfill development. The site is suitable 'in principle' whereby the specifics of the development should be considered through the planning application process.
BA 24 Sowerby Woods Business Park.	Agree <input type="checkbox"/> Disagree <input type="checkbox"/>	
BA 25 Haws View Industrial Estate	Agree <input type="checkbox"/> Disagree <input type="checkbox"/>	
M 5 High Greenscoe quarry extension: Area of Search	Agree <input type="checkbox"/> Disagree <input type="checkbox"/>	
M 27 Roose sand quarry: Preferred Area (existing planning permission area).	Agree <input type="checkbox"/> Disagree <input type="checkbox"/>	
Mineral Safeguarding Areas	Agree <input type="checkbox"/> Disagree <input type="checkbox"/>	

CARLISLE		
Commenting on: site	Response – tick box	If you disagree please say why .
CA 11 Willowholme	Agree <input checked="" type="checkbox"/> Disagree <input type="checkbox"/>	
CA 24 Hespian Wood	Agree <input type="checkbox"/> Disagree <input type="checkbox"/>	
CA 28 Rockcliffe	Agree <input type="checkbox"/> Disagree <input type="checkbox"/>	
CA 29 Heathlands	Agree <input type="checkbox"/> Disagree <input type="checkbox"/>	
CA 30 Kingmoor Road	Agree <input type="checkbox"/> Disagree <input type="checkbox"/>	
CA 31 Kingmoor Park East	Agree <input type="checkbox"/> Disagree <input type="checkbox"/>	
M 7 Low Gelt quarry extension: Area of Search	Agree <input type="checkbox"/> Disagree <input type="checkbox"/>	
M 8 Cardewmires quarry extension: Area of Search	Agree <input type="checkbox"/> Disagree <input type="checkbox"/>	
M 10 Silvertop quarry extension: Area of Search	Agree <input type="checkbox"/> Disagree <input type="checkbox"/>	
Mineral Safeguarding Areas.	Agree <input type="checkbox"/> Disagree <input type="checkbox"/>	

COPELAND		
Commenting on: site	Response – tick box	If you disagree please say why .
CO 1 Whitehaven Commercial Park.	Agree <input type="checkbox"/> Disagree <input type="checkbox"/>	
CO 11 Bridge End Industrial Estate, Egremont	Agree <input type="checkbox"/> Disagree <input type="checkbox"/>	
CO 12 Beckermest No 1 Pit Industrial Estate	Agree <input type="checkbox"/> Disagree <input type="checkbox"/>	
CO 32 Land adjacent to Sellafield	Agree <input type="checkbox"/> Disagree <input checked="" type="checkbox"/>	<p>Site CO 32 - Land adjacent to Sellafield Site, Seascale</p> <p>It is somewhat surprising to see that the Council has identified a specific site for very low level radioactive wastes derived from decommissioning. This appears to be contrary to the approach referenced within the recent Core Strategy Inspector's Report. It was Waste Recycling Group's understanding that the policies relating to the disposal of VLLW would be amended once greater certainty had been provided through the release of National and Regional policies.</p> <p>Waste Recycling Group would like to specifically raise the following comments about the site appraisal carried out.</p> <p>The Site Appraisal sheet for the land adjacent to Sellafield appears to negatively score a range of criteria and also raises a number of uncertain areas requiring further work.</p> <p>Proximity to waste arisings – it is apparent that the site does adjoin the Sellafield complex where substantial volumes of decommissioning wastes will be generated. Much of this waste will be classed as High Volume Very Low Level and Low Level Radioactive Wastes.</p> <p>Although the site is adjacent to the Sellafield complex it is too simplistic to simply promote the site on this basis alone and must be subject to a Sustainability Appraisal alongside other potential sites. There are other nearby sites which are better placed to accept certain volumes of specific decommissioning wastes, such as future phases of</p>

Lillyhall Landfill. As with other sites in the Preferred Options Report, the Sellafield site must be the subject of robust assessment to ensure that the right site is proposed.

Accessibility – the site appears to be constrained from an access perspective and it will be important that the feasibility of access be considered at the Preferred Options stage. Clearly this will significantly influence deliverability of the facility.

It is noted that the site scores positively for its rail access potential however the waste will be derived locally so rail access should not be deemed such a significant factor.

Sequential Approach – the site proposed is currently Greenfield. The MWDF Preferred Options must consider the feasibility of delivering such a scheme. Assuming the development to be a landraise then this will present significant landscape/ visual, ecology and environmental control issues.

The North West of England Plan Regional Spatial Strategy, Policy EM13 states that *“in considering proposals for waste management facilities (including additional landfill capacity) the ability of existing established sites to meet the needs of the region / sub region should be fully explored. Wherever possible such sites should be used in preference to other sites where waste management activities have not been previously located”*. The proposed facility adjoining Sellafield would be a new waste disposal facility and, unless clearly demonstrated to be otherwise, contrary to this adopted regional policy.

Waste Recycling Group question why the site has scored positively for the waste management/ employment use allocation as it does not currently benefit from a formal designation within the Copeland Local Plan. Waste Recycling Group suggests that this score should be negative and be consistent with the approach taken at other sites in a similar position.

As identified previously, Waste Recycling Group believe that there are other sites which will score more positively on the sequential approach, and other criteria, than the proposed site adjoining Sellafield. A sites such as Lillyhall offers readily accessible void and significant potential for future development as identified in the Report. The site accords more closely with Regional Policies which advocate the sequential approach and maximising void available at existing facilities which are located in good locations.

Deliverability – it appears that there is *‘too much*

uncertainty to allocate a score to this criteria, thereby requiring further work. Given there is this level of uncertainty it would be prudent for the Waste Planning Authority to consider the identification of other sites which could accept locally derived decommissioning wastes into the future.

Deliverability is a critical issue with any waste management facility and one which the Authority is right to carefully consider. The under-allocation of sites can further compound the issue of deliverability and thereby undermine the aims of the MWDF Site Allocations.

Waste Recycling Group question the level of consultation undertaken with the landowner and why a level of certainty has not been attached to this score.

Flood Risk – part of the eastern side of the site appears to be located within a fluvial flood zone of tributaries of the River Calder.

Given the site's location on the coast it will also be important to consider the potential for sea level rise which may lead to an increased level of flood risk.

Further advice should be sought from the Environment Agency to determine their Policy stance on this issue.

Environmental Assets

Ecological features – the site appears to score very negatively against local ecological interests, including the proximity of nearby UK Priority Habitats along with evidence of important Protected Species. Waste Recycling Group suggests that to reflect the location of the site a 'xx' score should be identified.

It is important to also identify the nearby River Ehen and River Calder designated water related Special Areas of Conservation (SAC). Given the proximity of the proposed site to these SACs any permissions which may have an impact on the environment will need to be the subject of a detailed Appropriate Assessment. The Site Appraisal fails to identify the Designated Sites. This should be considered as part of the MWDF.

Groundwater Protection – the Sellafeld area is underlain by the Sherwood Sandstone Group which is classified by the Environment Agency as a major aquifer of regional importance. Above the Sherwood Sandstone are variable thicknesses of glacial and post-glacial deposits, which are physically highly variable but largely consist of

porous sands and gravel. It is understood that there is hydraulic connectivity between the solid and drift deposits and potentially with the nearby rivers. There are a number of springs identified both on the site and in the vicinity of the proposed site. The glacial and post-glacial sand and gravel deposits are classified as minor aquifers by the Environment Agency and could support a number of locally significant small abstractions.

It is important that this asset of the site is recognised and used to inform the overall Site Appraisal. The Landfill Location criterion is a fundamental element of the Landfill Directive must be carefully assessed and fed into the deliverability assessment criteria.

Geology – the site is underlain by Quaternary deposits and Sherwood Sandstone which form important local and regional aquifers. Given the variability of the glacial and post-glacial deposits it is unlikely that there are any deposits beneath the site which could be considered suitable robust geological barriers. In order for the site to be deliverable there would need to be a significant import of suitable engineering materials at substantial cost placing increased strain upon the infrastructure network. This is likely to impact upon the deliverability of the site. The suitability of the geological setting for waste disposal should form an important part of the Site Appraisal and reflected in the Sustainability Appraisal.

Alternative sites should be considered and appraised accordingly.

Economic Potential – Waste Recycling Group question why the site scores so highly for this criterion. The site will employ relatively few addition employees and whilst be accept scoring is subjective it must be consistent and stand up to scrutiny. The score allocated should be consistent with other landfill extensions, such as AL31 and CO33, and be awarded a '✓' score.

Sustainability Appraisal

Waste Recycling Group consider that the Plan fails to carry out an adequate sustainability appraisal of each of the sites identified, along with the other potential sites identified on the 'long list' of possible sites.

On the assumption that a sustainability appraisal has taken place of all possible VLLW disposal sites, Waste Recycling Group request a copy of the Sustainability Appraisal conducted for the 'CO32 – Land Adjacent to the Sellafeld site', 'AL31 - Lillyhall Landfill Site, Lillyhall' and 'CO31 - Keekle Head', along with any other considered sites for waste disposal.

		<p>Conclusion</p> <p>In conclusion, Waste Recycling Group question the methodology used to identify the 'CO32 – Land adjacent to Sellafield Site, Seascale'. Whilst we appreciate the subjective nature of the site appraisal work, it is apparent that a number of Site Selection Criteria have been overlooked and/ or misjudged. The site appraisal relies heavily upon one factor (that the site adjoins the site where decommissioning waste is to be generated) but does not adequately consider other factors and does not adequately compare the sustainability of this site against others.</p> <p>Waste Recycling Group suggests that the scoring of the site should be revisited and the assessment of the CO32 site be reconsidered in a clear and transparent manner alongside other alternative sites.</p>
CO 34 Redhills (extended), Millom.	Agree <input type="checkbox"/> Disagree <input type="checkbox"/>	
CO 35 the Low Level Waste Repository	Agree <input type="checkbox"/> Disagree <input type="checkbox"/>	
M 15 Peel Place quarry extension: Area of Search	Agree <input type="checkbox"/> Disagree <input type="checkbox"/>	
M 17 Ghyll Scaur quarry extension: Area of Search	Agree <input type="checkbox"/> Disagree <input type="checkbox"/>	
M 22 Birkhams buiding stone quarry extension: Area of Search	Agree <input type="checkbox"/> Disagree <input type="checkbox"/>	
M 31 Salthouse (safeguarding for potential rail siding)	Agree <input type="checkbox"/> Disagree <input type="checkbox"/>	
Mineral Safeguarding Areas.	Agree <input type="checkbox"/> Disagree <input type="checkbox"/>	

EDEN		
Commenting on: site	Response – tick box	If you disagree please say why .
ED 1 Blencowe quarry.	Agree <input type="checkbox"/> Disagree <input type="checkbox"/>	
ED 7 Thackwood clay pit for landfill.	Agree <input type="checkbox"/> Disagree <input type="checkbox"/>	
ED 10 Crosscroft Industrial Estate, Appleby.	Agree <input type="checkbox"/> Disagree <input type="checkbox"/>	
ED 31 Flusco waste management complex.	Agree <input type="checkbox"/> Disagree <input type="checkbox"/>	
ED 33 Tebay, former rail siding	Agree <input type="checkbox"/> Disagree <input type="checkbox"/>	
M 18 Stamphill Preferred Area for gypsum.	Agree <input type="checkbox"/> Disagree <input type="checkbox"/>	
Mineral Safeguarding Areas.	Agree <input type="checkbox"/> Disagree <input type="checkbox"/>	

SOUTH LAKELAND		
Commenting on: site	Response – tick box	If you disagree please say why .
SL 1A Kendal Fell quarry	Agree <input checked="" type="checkbox"/> Disagree <input type="checkbox"/>	
SL 1B land adjacent to Kendal Fell quarry	Agree <input checked="" type="checkbox"/> Disagree <input type="checkbox"/>	
M 30 Roan Edge quarry extension Area of Search.	Agree <input type="checkbox"/> Disagree <input type="checkbox"/>	
Mineral Safeguarding Areas.	Agree <input type="checkbox"/> Disagree <input type="checkbox"/>	

Personal Details		Agents Details (if applicable)	
Title	Mr		
First Name	James		
Last Name	Cook		
Job Title (if any)	Estates Manager (NW)		
Organisation (if any)	Waste Recycling Group Ltd		
Address line 1	Barton House		
Line 2	Darland Lane		
Line 3	Lavister		
Line 4	Nr Wrexham		
Post Code	LL12 0EL		
Telephone Number	07920 823792		
E- Mail Address	james.cook@wrg.co.uk		

Thank you very much for responding to the Minerals and Waste Development Framework Draft Site Allocations Policies Preferred Options:

Richard Evans
Principal Planning Officer
Cumbria County Council
County Offices
Kendal
LA9 4RQ

Office Number: 01244 572524
Fax Number: 01244 579200
Mobile No: 07920 823792
Email: james.cook@wrg.co.uk

7th February 2010

Cumbria/ MWDF/ JC070210

Dear Richard,

SITE ALLOCATIONS POLICIES & PROPOSALS MAP (REGULATION 27) CONSULTATION

Waste Recycling Group Ltd (WRG) welcomes the opportunity to comment upon the Regulation 27 consultation on Cumbria County Council's Minerals and Waste Development Framework (MWDF).

WRG is assured to see the identification of Kendal Fell Quarry and Lillyhall Waste Management Centre as 'preferred sites' for future waste management facilities, along with the Willowholme facility which has been identified as a 'reserve site'. We are also content to see that the Ormsgill Yard site has been reassessed as part of the site search work and the Waste Planning Authority consider that *"...there may be potential for these, it is not considered necessary to identify an existing site in these policies. The matters are considered to be ones for the planning application process rather than these site allocations policies."*

WRG continue to be committed to offering the sites proposed and ensuring the delivery of sustainable waste management throughout Cumbria.

However we would also like to make a number of comments about our sites at Bennett Bank (BA23) and Lillyhall (AL31). We trust that the comments will be considered alongside the various comments made during submissions to previous consultations associated with the MWDF.

SITE ALLOCATIONS POLICY 4 – ADDITIONAL NON-INERT LANDFILL CAPACITY

SITE AT BENNETT BANK (REFERENCE BA23)

Bennett Bank Landfill Site continues to provide valuable void for the disposal of municipal solid waste derived from the South of Cumbria.

WRG understands that it the Councils view that additional sites need to be sought because of the refusal of planning permission at Bennett Bank. WRG disagree with this in that the purpose of the plan is to identify sites that are 'suitable in principle' to meet the additional need for landfill

capacity. The Bennett Bank planning application was refused on application specific details and does not reflect on the site as being unsuitable. It is apparent from the MWDF Regulation 25 and 27 consultations that site search work has been unsuccessful in identifying a feasible alternative site. The current consultation identifies Goldmire Quarry as a 'reserve site' for future non-inert landfill thus leaving the South of Cumbria without a 'preferred site'. Clearly this is not an acceptable solution particularly when considering the details of the adopted Core Strategy which identified a need for approximately an extra 2 million cubic metres of landfill void to 2020, in addition to that already consented. The Core Strategy also emphasized the urgent need for landfill void in the south of the County and the need to reduce the need to transport waste significant distance, either to other areas of the County or beyond the County boundaries.

As with the Regulation 25 consultation WRG questions the reasons for failing to identify the Bennett Bank site as a preferred site for future landfill in Cumbria. It is considered that, when a systematic, consistent and transparent site assessment is conducted Bennett Bank significantly outperforms other competing sites. Previous work completed by the Waste Planning Authority as part of the earlier Core Strategy consultations, to identify the site for future void capacity still remains valid. The scoring criteria adopted by the Council in the site selection process do not accurately reflect the position at Bennett Bank. There are serious issues associated with the deliverability of other sites identified in the consultation, such as access issues, technical reservations and concerns from key consultees, which are not issues at Bennett Bank.

Whilst the proposed Bennett Bank landfill extension scheme is currently awaiting a decision from the Planning Inspectorate following the recent Public Inquiry, the site should still be identified within the Site Allocations Policies and Proposals Map as a preferred site for landfill disposal. In our opinion the site is acceptable 'in principle' and the reasons for refusal of planning permission by the Council relate to the specifics of the scheme rather than the acceptability of the site to meet the identified need. WRG defended this position at the recent Public Inquiry. Whilst not pre-judging the Planning Inspector's decision, should the appeal be dismissed then it may be possible for an alternative scheme to be presented through a revised planning application addressing any shortfalls in the previously submitted scheme. It became apparent during the recent Public Inquiry that the landfilling of the southern extension phase was the only significant area of disagreement between parties. Should a scheme be presented which minimizes this conflict then such an opportunity should be given, rather than excluded, through the Site Allocations Policies and Proposals Map.

WRG draws your attention to the comments made in response to the Regulation 25 consultation and specifically that "...Bennett Bank has been discounted not because the site isn't acceptable 'in principle', but because an application was refused against officer recommendation and is currently subject to a Section 78 appeal. The now inclusion of Goldmire Quarry [as a reserve site in the Regulation 27 consultation] is a reaction to that situation, without first having regard to the credible evidence base. Secondly, as demonstrated above, the Plan would not be 'effective' as this allocation is unlikely to be deliverable, and certainly not within the required timescales, and nor does the identification of this site alone provide for the required flexibility to meet landfill requirements in the south of the county." These comments, along with the other comments detailed in the Regulation 25 consultation response, still remain relevant and have not yet been addressed.

SITE ALLOCATIONS POLICY 5 – LOW LEVEL AND VERY LOW LEVEL RADIOACTIVE WASTE

SITE AT LILLYHALL (REFERENCE AL31)

WRG's Lillyhall site has been identified as a site which is potentially suitable for a resource recovery park, including waste treatment, recovery and disposal facilities. Established facilities already exist at the site including a waste treatment centre, materials recycling with co-located hazardous and non-hazardous landfill sites.

WRG draws the Waste Planning Authority's attention to the comments made in the Regulation 25 consultation response (copy attached). The concerns identified about the methodology for identifying the Sellafield sites (both CO36 – Land within Sellafield and CO32 – Land adjacent to Sellafield identified as the reserve site) still remain in the Regulation 27 consultation. The negative scoring associated with the two Sellafield sites is clearly overridden by the proximity to the waste arisings.

Whilst WRG understand the preference of Cumbria County Council that wastes be managed within the Sellafield complex it is important that the Site Allocations document identifies a sustainable and deliverable solution. The Regulation 27 consultation document states that *"...there is uncertainty about whether land can be made available there. In order to make this position clearer, Sellafield is now identified as the first preference site and land next to it as the reserve or contingency if the wastes cannot be managed within Sellafield."* This is a very risky position to adopt and provides no security that a disposal facility will be delivered in a timely manner. WRG considers that there is a need to identify an alternative route for very low level wastes derived from decommissioning works. An alternative site be identified which is the best solution from a sustainability perspective and importantly is deliverable.

The Waste Planning Authority is aware that WRG is in the latter stage of an application which will allow the well established Lillyhall site to accept very low level wastes derived from decommissioning activities. In accordance with Regional Spatial Strategy Policy EM 13, in considering proposals for new facilities, preference should be given to using established waste sites. WRG believe that Lillyhall should therefore be considered a deliverable disposal solution which scores highly when assessed alongside the currently identified preferred and reserve sites for very low level radioactive wastes.

In conclusion, WRG question the methodology used to identify both 'CO36 – Land within Sellafield and CO32 – Land adjacent to Sellafield, identified as the reserve site'. Whilst we appreciate the subjective nature of the site appraisal work, it is apparent that a number of Site Selection Criteria have been overlooked and/ or misjudged. The site appraisal relies heavily upon the one factor that the site adjoins the site where decommissioning waste is to be generated but does not adequately consider other factors, most importantly the site's deliverability, and does not adequately compare the sustainability of this site against others.

WRG suggests that the scoring of the site should be revisited and the assessment of the CO32 site be reconsidered in a clear and transparent manner alongside other alternative sites ahead of the Site Allocation Policies and Proposals Map being finalised.

Yours sincerely,

James Cook
Estates Manager (North West)

From: Page, Edward on behalf of Development Control - Planning Dept address
Sent: 07 November 2011 09:38
To: ECE - Minerals and Waste Development Framework
Cc: Evans, Richard G; Brett, Sue A
Subject: FW: Cumbria Minerals and Waste Development Framework Site Allocations

From: TownPlanning LNW
Sent: 04 November 2011 12:06
To: 'mwdf@cumbria.gov.uk'
Subject: Cumbria Minerals and Waste Development Framework Site Allocations

FAO RICHARD EVANS
CUMBRIA MINERALS AND WASTE DEVELOPMENT FRAMEWORK - SITE ALLOCATIONS
POLICIES AND PROPOSALS MAP REPEATED REGULATION 27 CONSULTATIONS

Richard

Thank you for consulting Network Rail on the above policy consultation.

In regard to the above Network Rail has the following comments to issue to the council.

LEVEL CROSSINGS:

Should the council have a proposal / planning application as a result of the site allocations policy consultation or should any proposal for minerals and waste be submitted the council should examine the application for impacts upon Network Rail's level crossings. I would like to bring to the council's attention that a proposal site need not be next to or close to a level crossing for the type and amount of traffic to increase over the level crossing and that level crossings could be impacted by increased frequency or indeed initial usage by HGVs frequently associated by such mining schemes or by any new users of any proposed sites.

May I remind the council that under [Schedule 5 \(f\)\(ii\) of the Town & Country Planning \(Development Management Procedure\) Order, 2010](#) *requires that....*

"Where any proposed development is likely to result in a material increase in volume or a material change in the character of traffic using any type of level crossing over a railway (public footpath, public or private road) the Planning Authority's Highway Engineer must submit details to both Her Majesty's Railway Inspectorate and Network Rail for separate approval."

Therefore the council has a statutory duty to flag to Network Rail any form of development that may impact upon the level crossing. Any development that may take place in the Cumbria CC area in connection with any mining or waste proposals must be flagged up to Network Rail and the ORR for investigation and review.

Network Rail reserves the right to object to any proposal that may adversely impact upon a level crossing.

We would request that as part of the site allocation policy that the council includes (or agrees to include in principle) as policy the need for any minerals and waste sites to be examined with a view to their effect

upon any Network Rail level crossings as above. And that the developers / applicants for any sites should via S106 contributions provide financial support for the enhancement of any impacted level crossing. This may include enhancing the type of level crossing, or fully contributing to its closure and replacement bridges, footbridges or underpasses as deemed necessary by Network Rail.

In addition, Network Rail will seek to protect their interests/infrastructure from the potential impacts of mineral extraction and waste management operations, so we do not put forward sites for consideration due to the potential high risk impact of mining, minerals extraction and waste on the railway land and infrastructure. Network Rail is prepared to meet with applicants to discuss significant proposals prior to the submission of planning applications. It is requested that Network Rail is consulted on all planning applications for minerals and waste management proposals within 250 metres of the boundary with Network Rail owned land and any operational railway land.

Regards

Diane Clarke
Town Planning Technician LNW
Network Rail

Please send all Notifications and Consultations to TownPlanning.LNW@networkrail.co.uk or by post to Network Rail, Town Planning Team LNW, 1st Floor, Square One, 4 Travis Street, Manchester, M1 2NY

From: Evans, Richard G
Sent: 11 November 2011 15:05
To: 'Townplanning.LNW@networkrail.co.uk'
Cc: Brett, Sue A; Mason, Maggie M; Fairlamb, Iain
Subject: Cumbria Minerals and Waste Development Framework Site Allocations Policies

Fao Diane Clarke

RGE/p.334/26

11 November 2011

Dear Diane,

**Cumbria Minerals and Waste Development Framework
 Site Allocations Policies Repeated Reg 27 Consultations**

Thank you for your email of 7 November concerning the above Policies.

Our copy of the Development Management Procedure Order 2010. and the one on a relevant independent legal website that we use, have different wording for Schedule 5 (f) (ii) to that which you have quoted and I am not aware of a recent update. I shall be grateful if you can correct me if I am wrong about this.

In accordance with our copy of the Order, the operator of the network and the Secretary of State for Transport have to be consulted and this has been the case for a long time. The requirement is where there would be an increase or a material change in the traffic using a level crossing, I am not aware of a requirement to consult on all minerals and waste proposals.

Your request with regard to the content of the Site Allocations Policies will be reported to Cabinet and County Council for consideration as one of the consultation responses. It will also be included in the Pre-submission Consultations Statement that is required to be submitted to the Secretary of State. As you will be aware, anyone making representations is given the opportunity to make them in person to the Inspector during the Hearing in Public sessions' part of the Examination process for submitted development plan documents.

In the meantime, my personal opinion is that it would be inappropriate to include a policy that reiterates what is an existing statutory requirement with regard to level crossings. I also feel that the possible S.106 measures that you mention could be relevant considerations for a planning application, but would be difficult to set out as a development plan policy.

We will give further consideration to your request to be consulted on all minerals and waste management planning application proposals within 250 metres of

operational railway land.

I am not sure I understand what the purpose would be, in terms of material planning considerations, of your request to be consulted within the same distance of other Network Rail owned land.

Yours sincerely,

Richard Evans

Team Leader

From: Alder, Lindsay [lindsay.alder@highways.gsi.gov.uk]

Sent: 08 November 2011 15:36

To: ECE - Minerals and Waste Development Framework; Evans, Richard G

Subject: Cumbria Minerals and Waste Development Framework, Site Allocations Policies and Proposals Map, Repeated regulation 27 Consultations

Dear Mr Evans

Thank you for the opportunity to comment on the above documents.

I have had a look through the revised sites and can inform you that the Agency has no further comment to make with regard to this document.

It is recognised that where any of the sites are next to the Strategic Road Network, Transport Assessments will have to be carried out for planning application proposals. This would need to assess, among other matters, whether improvements would be necessary.

Please feel free to contact me if I can be of any further assistance.

Regards Lindsay

Lindsay Alder, Assistant Asset Manager
Highways Agency | Piccadilly Gate | Store Street | Manchester | M1 2WD
Tel: +44 (0) 161 9305642 | Mobile: + 44 (0) 7796192350
Web: <http://www.highways.gov.uk>
GTN: 4315 5642

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From: Claire Streater [clairestreater@coal.gov.uk] on behalf of The Coal Authority-Planning
[PlanningConsultation@coal.gov.uk]
Sent: 08 November 2011 15:52
To: ECE - Minerals and Waste Development Framework
Subject: Site Allocations Policies and Proposals Map
Dear Richard Evans

Thank you for consulting The Coal Authority on the above.

Having reviewed your document, I confirm that we have no specific comments to make on this document at this stage.

We look forward to receiving your emerging planning policy related documents; preferably in an electronic format. For your information, we can receive documents via our generic email address planningconsultation@coal.gov.uk, on a CD/DVD, or a simple hyperlink which is emailed to our generic email address and links to the document on your website.

Alternatively, please mark all paper consultation documents and correspondence for the attention of Planning and Local Authority Liaison.

Should you require any assistance please contact a member of Planning and Local Authority Liaison at The Coal Authority on our direct line (01623 637 119).

Regards

Claire Streater

Admin Officer

Planning and Local Authority Liaison

The Coal Authority

* 200 Lichfield Lane, Berry Hill, Mansfield, Nottinghamshire NG18 4RG

' Planning Enquiries: 01623 637 119

9 Planning Email: planningconsultation@coal.gov.uk

8 Website: www.coal.gov.uk/services/planning

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From: Tipple, Kevin [Kevin.Tipple@northumberland.gov.uk]
Sent: 15 November 2011 08:47
To: ECE - Minerals and Waste Development Framework
Subject: Site Allocation Policies and Proposals Map - Regulation 27 consultation
Dear Sirs

Cumbria Minerals and Waste Development Framework
Site Allocation Policies and Proposals Map
Repeated Regulation 27 consultation

Thank you for consulting Northumberland County Council on the draft Site Allocations Policies Development Plan Document and Proposal Map for the Cumbria Minerals and Waste Development Framework.

With regards to the presentation of the Mineral Consultation Areas, Part 4 of the Proposals Map shows Mineral Consultation Areas within the administrative area of Northumberland County Council. Parts of these Mineral Consultation Areas extend into Northumberland for over 3 kilometres. A minor amendment should be made to the Proposals Map to revise the extent of the Mineral Consultation Areas to ensure they do not extend into the administrative area of Northumberland County Council.

If you would like to discuss this comment in any more detail, please do not hesitate to contact me.

Yours faithfully

Kevin Tipple
Planning Officer
Planning Strategy
Local Services Group
Northumberland County Council
County Hall
Morpeth
Northumberland
NE61 2EF

Telephone: 01670 533988
Fax: 01670 533409

Email: Kevin.Tipple@northumberland.gov.uk
Website: www.northumberland.gov.uk

Northumberland made the following annotations

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From: Brett, Sue A
Sent: 21 November 2011 10:38
To: 'Tipple, Kevin'
Subject: Cumbria Site Allocation Policies and Proposals Map - Regulation 27 consultation

Attachments: Minerals Consultation Areas proposed protocol - 110325.doc; MCA-Checklist(110508)-DRAFT.xls; Statutory Class Codes - Carlisle City Council May 2011.doc
Hello Kevin

thanks for your e-mail concerning our Site Allocations Policies consultation.

Further to our telephone conversation on 15 November, I confirm that we are looking again at how to handle our Mineral Consultation Areas at the County boundary. We certainly will need to cut the MCAs back where the British Geological Survey data crosses the boundary to the extent you note (3km). There needs to be discussion with your authority (and with North Yorkshire, Durham and Lancashire) about whether we have a 250m MCA buffer that crosses the boundary - that would be our intention at the moment.

As I said last week, we have had discussions earlier this year with our District Councils, and the Lake District National Park Authority, about a protocol for planning applications that they receive, which fall into our MCA. Obviously, your situation is different as a Unitary Authority, but I attach some data that may be of use to you, when you consider your Mineral Safeguarding Areas and other Local Authority MCAs at the Northumberland boundaries.

I hope the attachments are quite straightforward, but if you have any questions, please get back to me.

Regards,

Sue Brett
Minerals & Waste Policy Team
Cumbria County Council
01539-713409
sue.brett@cumbria.gov.uk

From: Shaw, Liz [Liz.Shaw@enwl.co.uk]

Sent: 17 November 2011 12:07

To: ECE - Minerals and Waste Development Framework

Cc: Richard.Evans@cumbira.gov.uk

Subject: Your ref: RGE/P334-26 Our ref: PA938 Cumbria Minerals and Waste Development Framework

Attachments: PA938 RGE-Pee4-26.xls

F.a.o Richard Evans

With regards to the reference above please find attached our letter of response. Please note also that the details have been passed onto our Estates and Wayleaves department in Kendal.

Many thanks

Regards

Liz Shaw
Electricity North West
Commercial Section
Oldham WWTW

Tel: 0161 909 8807
liz.shaw@enwl.co.uk

THINK BEFORE

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Richard Evans
 Cumbria County Council
 Environment Directorate
 Planning and Sustainability
 County Offices
 Kendal
 LA9 4RQ

Richard.Evans@cumbria.gov.uk

Your Ref: RGE/P334-26
 Our Ref: PA938 Cumbria

Direct Line 0161 909 8807

Direct Fax 0161 909 8891

liz.shaw@enwl.co.uk

Date: 17th November 2011

Dear Richard

Cumbria Minerals and Waste Development Framework

We have considered the above planning application submitted on 21/10/2011 and find it could have an impact on our infrastructure.

The development is shown to be adjacent to or affect Electricity North West operational land or electricity distribution assets. Where the development is adjacent to operational land the applicant must ensure that the development does not encroach over either the land or any ancillary rights of access or cable easements. If planning permission is granted the applicant should verify such details by contacting Electricity North West Limited, Estates and Wayleaves, Frederick Road, Salford, Manchester M6 6QH.

The applicant should be advised that great care should be taken at all times to protect both the electrical apparatus and any personnel working in its vicinity.

The applicant should also be referred to two relevant documents produced by the Health and Safety Executive, which are available from The Stationary Office Publications Centre and The Stationary Office Bookshops, and advised to follow the guidance given.

The documents are as follows: -

HS(G) 47 - Avoiding danger from underground services.

GS 6 - Avoidance of danger from overhead electric lines.

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The applicant should also be advised that, should there be a requirement to divert the apparatus because of the proposed works, the cost of such a diversion would usually be borne by the applicant. The applicant should be aware of our requirements for access to inspect, maintain, adjust, repair, or alter any of our distribution equipment. This includes carrying out works incidental to any of these purposes and this could require works at any time of day or night. Our Electricity Services Desk (Tel No: 0870 6870501) will advise on any issues regarding diversions or modifications.

Electricity North West Limited offers a fully supported mapping service at a modest cost for our electricity assets. This is a service, which is constantly updated by our Data Management Team (Tel No: 0800 1954749) and I recommend that the applicant give early consideration in project design as it is better value than traditional methods of data gathering. It is, however, the applicant's responsibility to demonstrate the exact relationship on site between any assets that may cross the site and any proposed development.

Yours sincerely,

Eric Roberts,
Commercial Manager.



Clerk: Neil Whalley, Orchard Cottage, Gleaston, Ulverston, Cumbria, LA12 0QE
01229 869213 parish.clerk@aldingham.org.uk

Environment Unit
County Offices
Kendal
LA9 4RQ

21st November 2011

To Whom It May Concern:

**CUMBRIA MINERALS AND WASTE DEVELOPMENT FRAMEWORK: SITE ALLOCATION
POLICIES RE-CONSULTATION**

I am writing to inform you that the Parish Council have reviewed the amended plans regarding the extension to the sand and gravel quarry at Roosecote (M12) and can see no major problems with the proposals. The Council did raise a few minor points, which they hope you will take into consideration.

There were concerns about disruption to traffic if vehicles are frequently moving back and forth across the A5087 and with the potential for the road to become messy. The Council would like to see that, if necessary, measures are put in place for road-cleaning when the site becomes functional.

The only other concern was that footpath number 601014, which runs alongside the proposed site, is fully protected from damage by operations.

Yours sincerely

Neil Whalley
Clerk to the Council

From: Brett, Sue A
Sent: 21 November 2011 12:21
To: 'Neil Whalley'
Subject: RE: Site Allocations Response

Thanks for your response, Neil.

The comments are duly noted.

Regards

Sue Brett
Minerals & Waste Policy Team
Cumbria County Council
01539-713409
sue.brett@cumbria.gov.uk

-----Original Message-----

From: Neil Whalley [mailto:n.whalley85@googlemail.com]
Sent: 21 November 2011 12:08
To: ECE - Minerals and Waste Development Framework
Subject: Site Allocations Response

Please find attached a letter from Aldingham Parish Council regarding their response to the current re-consultation on Site Allocations.

Regards

Neil Whalley
Clerk to Aldingham Parish Council

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From: DAVID POLHILL [d.polhill@btinternet.com]

Sent: 22 November 2011 16:02

To: ECE - Minerals and Waste Development Framework

Subject: Cumbria Minerals & Waste Development Framework

Dear Mr Evans - I am responding to your letter of 24th Oct 2011. I assume that there is no need for Parish Councils to respond again to the original consultation unless they have been included within those areas which were subject to judicial review. If this is the case I would just reiterate that the stance of Ponsonby and Gosforth Parish Councils has not changed and the original objections still stand. Yours

DA Polhill

Clerk - Ponsonby PC

Gosforth PC

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Cumbria County Council
County Hall (County Offices)
Busher Walk
Kendal
Cumbria
LA9 4RQ

Our ref: NO/2011/103029/01-L01
Your ref: CCC
Date: 23 November 2011

Dear Sir/Madam

**CUMBRIA MINERALS AND WASTE DEVELOPMENT FRAMEWORK
RECONSULTATION ON ADDITIONAL SITE ALLOCATION
SITE ALLOCATIONS, CORE STRATEGY, GENERIC DEVELOPMENT CONTROL
POLICIES, MAPS**

Thank you for consulting us on the above revision to site allocations. We have the following comments to make:

The inclusion of the M12 Roose quarry extension creates no further issues at a strategic level, and the generic comments from the previous consultation still apply.

For information, the Agency has a water level observation borehole within the area of the M12 extension, and the details are as follows:

Name of site: Roosecote
WRB No : SD26/11
Approx NGR: SD 23030 68658
This monitoring point has the benefit of a lease.

If you have any further questions please contact me on the details below.

Yours faithfully

Amy Heys
Planning Liaison Technical Specialist

Direct dial 01768 215716
Direct fax 01768 865606
Direct e-mail penrith.planning@environment-agency.gov.uk

Environment Agency
Ghyll Mount (Gillan Way) Penrith 40 Business Park, Penrith, Cumbria, CA11 9BP.
Customer services line: 03708 506 506
www.environment-agency.gov.uk
End

CUMBRIA RIGS GROUP

Conserving Regionally Important Geological and Geomorphological Sites

Chair: Dr. Ralph Coffey, 5 Rushley Mount, Hest Bank, Lancaster LA2 6ET (01524 822532)

Hon. Secretary: Mr. Michael Dewey, 111 Stambank Road, Kendal, Cumbria LA9 5DH (01539 736075)

Richard Evans,
Minerals and Waste Policy Team Leader,
Planning and Sustainability
Environment Directorate,
Cumbria County Council,
Kendal.

Date: November 22nd, 2011

Ref : RGE/P334-26

Dear Mr. Evans,

Cumbria Minerals and Waste Development Framework
Repeat Regulation 27 Consultations

Thank you for your letter of the 21st. October 2011 regarding the repeat consultations for the above scheme.

Currently we do not have a Regionally Important Geological Site in the vicinity of Roosecote Sand and Gravel Pit nor in the proposed Area of Search. We do not envisage the creation of such a site in the foreseeable future.

Hence we do not seek to make a representation in regard to the above consultation process.

Thank you for the opportunity to comment in the above consultation.

Yours sincerely,



Dr. J.R. Coffey,
Chairman Cumbria Rigs Group

ENVIRONMENT
DIRECTORATE

23 NOV 2011

ENVIRONMENT
UNIT



Planning Department

Direct Line: 01932 583448

Fax: 01932 568933

Email: mark.kelly@cemex.com

Our Ref: M.65

23rd November 2011

Mr Richard Evans
Minerals & Waste Policy Team Leader
Environment Directorate
Cumbria County Council
County Offices
Kendal
Cumbria LA9 4RQ

Dear Mr Evans

**Cumbria Minerals and Waste Development Framework
Site Allocations Policies and Proposals Map
Repeated Regulation 27 Consultations**

I refer to your letter of 21st October 2011 addressed to my colleague, Mr Shaun Denny concerning the above.

We operate Moota Quarry near Bothel providing building materials to construction projects in North Cumbria. The quarry exploits high quality limestone and also hosts an asphalt plant on site. We have recently completed a contract to supply the Carlisle By-pass Project expected to open next month. Currently permitted reserves offer a further 4-5 years life and we are presently engaged in a study into potential extensions to the workings which would maintain production and local supply. The quarry supports 12 full time employees and a further 30 indirectly through haulage and maintenance contracts.

We support the policies contained within the plan we would like to suggest that two areas around the above site, as shown on the attached aerial photograph, should be included as 'Areas of Search' within Policy 7. We are in the process of evaluating the mineral potential in these areas and with the co-operation of the Council hope to advance environmental studies which could support a future application.

I would be pleased to meet with you on this matter if you consider that this would be helpful.

Yours sincerely

Mark Kelly
Project Planner



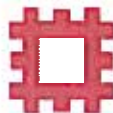
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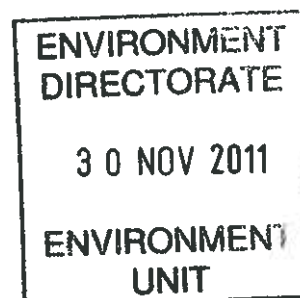
NORTH WEST

Cumbria County Council
Minerals and Waste Policy Team
Attn Richard Evans
County Offices
Kendal
LA9 4RQ

Our ref: 787
Your ref: RGE/P334-26

Telephone: 0161 242 1423

28th November 2011



Dear Mr Evans

**Cumbria Minerals & Waste DF, Site Allocations Policies and Proposals Map:
repeated Reg 27 consultations**

Thank you for your letter dated 21st October 2011 consulting English Heritage on the revisions relating to site M12 in the above document.

Number 1 Moorhead Cottages and attached barn, Rampside Road is a grade II Listed Building. The listed building is located immediately opposite site M12 and between sites M12 and M27.

Section 5 of the re-consultation document, Comments and Issues about the Proposed Sites, does not refer to presence of the listed building for either of these sites. The Sustainability Appraisal in section 6 on Environmental Assets or section 7 Visual and Landscape also does not refer to the presence of the listed building. The Site Assessment Report does refer to the adjacent listed buildings of Moorhead Cottages.

The Site Assessment information (September 2009) included a number of references to historic environment considerations as does the Autumn 2011 report. Whilst the Site Allocation Policies Re-Consultation document makes many references to the natural environment in the comments and issues section about the proposed sites, it is silent the historic environment, apart from the reference in paragraph 5.37 for site AL35.

The document should specifically identify potential effects upon heritage assets for site M12 and any mitigation required.

SUITES 3.3 AND 3.4 CANADA HOUSE 3 CHEPSTOW STREET MANCHESTER M1 5FW

Telephone 0161 242 1400 Facsimile 0161 242 1401

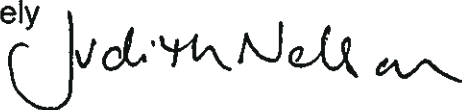
www.english-heritage.org.uk

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Correspondence or information which you send us may therefore become publicly available



More generally issues relating to the historic environment should also be addressed in the site by site commentary using information from the site assessments.

Yours sincerely



Judith Nelson
Planner – North West

E-mail: judith.nelson@english-heritage.org.uk



SUITES 3.3 AND 3.4 CANADA HOUSE 3 CHEPSTOW STREET MANCHESTER M1 5FW

Telephone 0161 242 1400 Facsimile 0161 242 1401

www.english-heritage.org.uk

Please note that English Heritage operates an access to information policy.
Correspondence or information which you send us may therefore become publicly available

From: Brett, Sue A
Sent: 28 November 2011 16:05
To: Hayward, Richard
Subject: RE: Repeated Regulation 27 Consultation on the MWDF Site Allocations Policies
Thanks for the comments, they are duly noted.

If a new surface gypsum mine is given planning permission, it would be expected (and likely given a condition) that raw materials are moved by conveyor to the existing processing works.

Regards,

Sue Brett
Minerals & Waste Policy Team
01539-713409
sue.brett@cumbria.gov.uk

From: Hayward, Richard
Sent: 28 November 2011 10:19
To: Brett, Sue A
Cc: Wynne, Jennifer; Lawley, Rob
Subject: RE: Repeated Regulation 27 Consultation on the MWDF Site Allocations Policies

I confirm that Cumbria Highways are content with this document, insofar as the entries for the Carlisle & Eden districts are concerned. I am asked to mention that there were significant concerns about the extraction of Gypsum in the Long Marton area and should use of this resource be undertaken it would be expected there would be an internal means of transport to the British Gypsum processing plant and gypsum would not be hauled as a raw material elsewhere by road haulage.

Regards,
T Richard Hayward
Development Manager (Carlisle & Eden)
Cumbria County Council Environment Directorate
Highways & Transportation
Barras lane | Dalston | Cumbria | CA5 7NY

t. 01228 227659
f. 01228 607658

From: Page, Edward **On Behalf Of** Development Control - Planning Dept address
Sent: 24 October 2011 18:20
To: Hayward, Richard; Barnard, Pieter GF; Masser, Keith J; Raymond, Nick AF; Goodwill, Mark; Wain, Jenny L; Palmer, Judy A; Parsons, Jeremy N; Hale, Graham RM
Cc: DMCarlisle H&T - Mailbox; DMeden H&T - Mailbox; Moultrie, James M; Evans, Dawn; Whitehead,

David I; D C Southlakeland; D C Barrow

Subject: Repeated Regulation 27 Consultation on the MWDF Site Allocations Policies



Environment Directorate – Planning and Sustainability
County Offices – Buser Walk – Kendal – LA9 4RQ
Fax: 01539 713439 – Tel 01539 713 425
Email: MWDF@cumbria.gov.uk

Date: 24 October 2011

References: RGE_Reg27_Re-Consult_Autumn2011_EP

Dear Sir/Madam

Cumbria Minerals and Waste Development Framework

Site Allocations Policies and Proposals Map: Repeated Regulation 27 Consultation

In 2009 and 2010 we consulted you about the above policies and maps. They were subsequently submitted to the Secretary of State, examined by the Planning Inspectorate and formally adopted by the County Council in January 2011.

At a very late stage in the process, there was a successful legal challenge in connection with a procedural matter and the documents were quashed by the High Court. It is, therefore, necessary for the consultations to be repeated before the documents can be resubmitted to the Secretary of State.

The challenge was about the inclusion, without a further round of consultations, of an Area of Search for sand and gravel known as M12 Roosecote quarry extension in Site Allocations Policy 7. This Area of Search was intended as a possible replacement for the nearby Roose sand and gravel quarry near Barrow in Furness, which is identified as a Preferred Area in the policy. The Inspector who examined the documents, concluded that the Area of Search needed to be included in the policy.

The documents being consulted upon can be viewed on and downloaded from our website: http://www.cumbria.gov.uk/planning-environment/planning/policy/minerals_waste/mwdf/SAP-Reconsult.asp

A statement about the consultation and the representations procedures is attached .

If you wish to make comments on the Site Allocations Policies and Proposals Map, they need to be received no later than Monday 5 December 2011. Please contact me if you need any further information.

Yours faithfully,

Richard Evans
Minerals & Waste Policy Team Leader

Planning & Sustainability
Environment Directorate | Cumbria County Council
County Offices | Busher Walk | Kendal | LA9 4RQ

T. 01539 713 425
F. 01539 713 439
Dept. E-mail: MWDF@cumbria.gov.uk

www.cumbria.gov.uk

From: margal.thornhill@talktalk.net

Sent: 18 November 2011 09:28

To: Evans, Richard G

Subject: letter dated 21.10.2011 MWDF Site Allocations Policies Topic

Dear Mr Evans

,
Re Map 3 of topic paper 5, suggested areas to be removed. Can you please advise me on the outcome of this.

Regards, Dennis Gallyer.

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For more information please visit <http://www.symanteccloud.com>

To: margal.thornhill@talktalk.net

Subject: RE: letter dated 21.10.2011 MWDF Site Allocations Policies Topic
RGE/p.334/26

30 November 2011

Dear Mr Gallyer,

I apologise for having missed your email dated 18 November, and for not replying before now.

Map 3 in Topic Paper 5, (Document reference ED56e) is a copy of a slide that I had shown at one of the earlier public meetings as a possible alternative way of defining the Mineral Safeguarding Area. That alternative was not taken up.

The map next but one in the Topic Paper, on page 25, shows, cross hatched in green, the larger safeguarding area that was included on the Proposals Map Insert E, That is the version that was submitted to the Secretary of State in April 2010 and which was discussed at the Hearing in Public session at Kirkby Thore on 11 October 2010. It is the one that is included in the current consultation version. It shows a rather amorphous shaped Area around the main gypsum resources.

What was agreed with the Inspector during the Hearing in Public sessions was that the map would be reviewed on the basis that the 'B' bed data should be used, as well as that for the 'A' bed, to define the Mineral Safeguarding Area. That is likely to result in a much larger Minerals Safeguarding Area, more akin to those for other minerals.

This is a matter that we intend to include as part of a review of the Minerals and Waste Development Framework Core Strategy which is anticipated to be commenced in the near future.

yours sincerely,

Richard Evans

Team Leader

019 - email 111130 Aggregate Industries

From: Geoff.Storey@aggregate.com

Sent: 30 November 2011 15:52

To: ECE - Minerals and Waste Development Framework; Evans, Richard G

Subject: Cumbria MWDF Site Allocation Policies Re-Consultation

Importance: High

I can confirm the following comments on behalf of Aggregate Industries UK Limited (the operator of Holmescales and Ghyll Scaur Quarries). In relation to Holmescales Quarry, I must again advise that this is a site of Regional importance for the supply of High Specification Aggregates which has limited consented reserves remaining but has potential for extension (M16 in the Site Assessment Report). The potential extension at Holmescales should be included as an area of search in Site Allocations Policy 7.

The inclusion of M17 the Ghyll Scaur Quarry Area of Search is supported bearing in mind that the stone is of national importance for high grip asphalt surfacing. Please note that the Ghyll Scaur Area of Search has been drilled and I am expecting a report including psv test results by the end of February 2012. The inclusion of M31 Salhouse potential railhead is supported.

In relation to the future supply of High Specification Aggregates it will be necessary to review the Core Strategy and Site Allocations bearing in mind the current short life at Ghyll Scaur (2021), Holmescales (reserves may be exhausted 2013), Ingleton (2018); Dry Rigg (2021) and Arcow (2015). Please acknowledge receipt of this e-mail. I may make further submissions when the results of the Ghyll Scaur drilling are known.

Regards, Geoff Storey

Estates Manager

Geoff Storey
Aggregate Industries
Carnforth
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29 November 2011

Our ref: SBH/36923

Your ref: RGE/P334-26



Richard Evans
Minerals and Waste Policy Team Leader
Environment Directorate
Cumbria County Council
Kendal
LA9 4RQ

Land Use Operations
Team
Natural England
Hornbeam House
Crewe Business Park
Electra Way
Crewe
Cheshire CW1 6GJ

T 0300 060 3900

BY EMAIL ONLY

Dear Mr Evans

CUMBRIA MINERALS AND WASTE DEVELOPMENT FRAMEWORK – SITE ALLOCATIONS POLICIES AND PROPOSALS MAP – REPEATED REGULATION 27 CONSULTATIONS

Thank you for your consultation on the above dated 21 October 2011, which was received by Natural England on 24 October.

As you know, Natural England is a non-departmental public body. Our statutory purpose is to ensure that the natural environment is conserved, enhanced, and managed for the benefit of present and future generations, thereby contributing to sustainable development.

We have, of course, commented on the Site Allocations Policies and Proposals Map previously. Those comments are already on record and we understand that we do not need to repeat them.

Our understanding is that the need for the re-consultation arises only as a result of the inclusion of an Area of Search for sand and gravel known as M12 Roosecote Quarry Extension in Site Allocations Policy 7. Our comments are as follows. We note that paragraphs 5.52 and 5.53 refer to this site and state that the Habitats Regulations Assessment concludes that 'this site is unlikely to have impacts on the Morecambe Bay SAC, SPA and Ramsar'. In addition, we welcome that the text points out that 'surveys for wildlife interest would be needed for a planning application', and 'there is potential for habitat creation and enhancement within a restoration scheme.' Clearly, we support the carrying out of wildlife and habitat surveys and would strongly support the creation and enhancement of habitat within any restoration scheme for the site.

Further Information / Consultations

For any correspondence or queries relating to this consultation response please do not hesitate to contact me using the contact details below. For all other correspondence, please contact the address above or the Natural England consultations email address at consultations@naturalengland.org.uk

Yours sincerely

STEPHEN HEDLEY
Lead Adviser
Land Use Operations Team
Direct dial: 07900608442
Email: stephen.hedley@naturalengland.org.uk

From: Hedley, Stephen (NE) [Stephen.Hedley@naturalengland.org.uk]
Sent: 01 December 2011 11:18
To: Evans, Richard G; ECE - Minerals and Waste Development Framework
Subject: Cumbria Minerals and Waste Development Framework - Site allocations Policies and Proposals Map - Repeated Consultations

Attachments: Cumbria MWDF Site Allocations etc Repeated Consultations.pdf

Dear Mr Evans,

Thank you for your consultation with Natural England. I've attached a letter setting out our response.

Please let me know if you have any queries on this and I'd be pleased to assist.

Kind regards,

Stephen Hedley

Lead Adviser, Land Use Operations Team

Natural England

3rd Floor

Bridgewater House

Whitworth Street

Manchester

M1 6LT

Tel. 0300 060 1792, Mobile 07900608442

Please note my usual working days are Tuesday and Thursday.

<<Cumbria MWDF Site Allocations etc Repeated Consultations.pdf>>

www.naturalengland.org.uk

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where wildlife is protected and England's traditional landscapes are safeguarded for future generations.

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From: Leo Oliver [Leo.Oliver@durham.gov.uk]
Sent: 02 December 2011 10:13
To: ECE - Minerals and Waste Development Framework
Cc: Rick Long; Jason Mckewon
Subject: Site Allocations PoliciesRepeated Reg27

Attachments: CumbriaMWDFRepeatedSiteAllocationsPolicies&MapsNov2011.doc

Dear Sirs

Please find attached the consultation response from Durham County Council to the Cumbria MWDF Site Allocations Policies and Proposals Map Repeated Regulation 27 Consultation.

Kind regards

Leo

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Contact: Leo Oliver
Direct Tel: 0191 383 4113
Fax:
email: Leo.Oliver@durham.gov.uk
Our Ref: 203/91/LO
Your Ref: RGE/P334-26



Mr Richard Evans
Minerals & Waste Policy Team Leader
Environment Directorate
Planning and Sustainability
County Offices
Kendal, Cumbria
LA9 4RQ

18 January 2012

Dear Mr Evans

**Cumbria Minerals and Waste Development Framework
Site Allocations Policies and Proposals Map
Repeated Regulation 27 Consultations**

Thank you for your letter of consultation dated 21st October 2011 in relation to the above matter. The following comments are made by Durham County Council as an adjoining strategic, minerals planning and highways authority.

Overall, the County Council welcomes the general approach of the document to identifying sites of economic importance. We note the identification of Mineral Safeguarding Areas, and the safeguarding of potential rail infrastructure and welcome the County Council's intent. We also welcome the approach to reserve sites, as this gives possibilities should the first choices prove unsuitable and provides the necessary flexibility.

Continued...

Regeneration and Economic Development
Durham County Council, County Hall, Durham, DH1 5UQ
Main Telephone 0300 1237070

There appears to be a cartographic error on the Proposals Map Part 4 in that it shows Minerals Consultation Areas within the administrative boundaries of Durham County Council and other administrative areas. A simple minor amendment should be made to “white out” the areas outside of Cumbria County Council’s area to ensure that Minerals Consultation Areas do not extend beyond Cumbria’s administrative boundaries.

I should mention that as part of our ongoing restructuring of the Regeneration and Economic Development Directorate, the Planning Policy Team are now based in County Hall in Durham. The new address will be:

Spatial Planning Policy Team
Regeneration & Economic Development
Durham County Council
County Hall
Durham
DH1 5UQ

Yours sincerely

Leo E Oliver
Planning Policy Team

022 - email 111204 Steve Balogh

From: steve.balogh@phonecoop.coop
 Sent: 04 December 2011 20:39
 To: ECE - Minerals and Waste Development Framework
 Subject: Re: Minerals & Waste rerepresentation

Dear Richard Evans

I wish to respond to your letter of 21/10/2011.

My comments do not relate to changes you find necessary to make for areas of search for sand/gravel.

It is, however noticeable that there have been NO changes to bring our minerals and waste plan into line with national policy - which we need to make - and review - to conform to the stricture the inspectors imposed. No other local authority makes provision for geological disposal facilities for deep reburial of radwastes - a plan that has currency for only a decade is not the place for policies that will devolve on future Cumbrians for millennia; CCC's MWDF, however devotes an entire chapter to this project. Chapter 8 remains unfit for purpose because, although it appears to countenance it's siting, excavation and installation in Cumbria, it makes no provision for the gargantuan quantities of spoil such a proposal entails.

Whether such spoils are wastes or mineral resources, their extraction, transport, and removal, hopefully to some useful purpose, most certainly DOES need to be in our plan. Our plan needs to cover those aspects of the project that may arise before it is superceded.

It will be inconsistent with present national policy, were the proposal to go ahead, with no planned provision for so large a scale excavation. Repeated requests for their estimates of these wastes and their proposed management to NDA, W. Cumbria MRWS & DECC have so far elicited nothing approaching a considered calculation of their bulk, their ultimate fate or the impact of the transport arrangements to convey them to it.

I believe that the Inspectors intention in making early review their proviso was to gain clarification of such unknowns and the method for assessment and mitigation of their impact.

Respectfully yours,
 Stephen Balogh

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Our ref: PP/SPC/PEA/001

Your ref: RGE/P334-26

Date: 01 December 2011

Mr Richard Evans
Minerals & Waste Policy Team Leader
County Offices
Kendal
LA9 4RQ

Dear Richard

**Cumbria Minerals and Waste Development Framework
Site Allocations Policies and Proposals Map
Repeated Regulation 27 Consultations**

Thank you for your letter dated 21 October 2011, inviting comments on the above document. We do not have any comments regarding the Area of Search for sand and gravel known as M12 Roosecote quarry extension in Site Allocations Policy 7.

However, we would like to ask whether this additional consultation provides an opportunity to add clarity to the presentation of site SL 1A (Site Allocations Policy 3). It is noted in the Policy, and accompanying map (page 39), that the site is in the Lake District National Park and therefore outside the scope of this document. With this in mind, is it appropriate to refer to it in policy? The context is provided on page 25, which with some amendments to the text would provide sufficient information to demonstrate your aspirations for the site as a whole and how the two components fit together. For further clarity, the shading on the map (page 39) should be amended to reflect the circumstance.

I hope you find these comments helpful.

Yours sincerely



Paula Allen
Policy Planner

Richard Leafe, Chief Executive



A member of the
Association of National Park Authorities
A member of the Federation of Nature and
National Parks of Europe

5 December 2011

Richard Waite
President, UK and Europe

Cumbria County Council
Environment Unit
County Offices
Kendal
LA9 4RQ

Direct tel: 01793 733118
Direct fax: 01793 733179

Dear Sir/Madam

The Town and Country Planning (Local Development) (England) Regulations 2004 (as amended), Regulation 27, Cumbria Minerals & Waste Development Framework, Site Allocation Policies, Re-consultation Autumn 2011

EnergySolutions welcomes the opportunity to comment on the Regulation 27 consultation on Cumbria County Council's Minerals and Waste Development Framework (M&WDF) and Site Allocation Policies.

EnergySolutions is an international nuclear services company, a world leader in the safe recycling, processing and disposal of radioactive waste. In the UK, EnergySolutions is responsible for the management of 10 Magnox reactor sites on behalf of the Nuclear Decommissioning Authority (NDA), as the parent body organisation (PBO) for the Magnox Ltd. site license company (SLC). EnergySolutions maintains an office in West Cumbria and employs a number of local staff. It is committed to working with local companies, in supporting the well-being of the communities in which it operates and in positively contributing to their socio-economic development.

EnergySolutions is also part of a commercial venture with Waste Recycling Group Ltd. (WRG) and is seeking to develop new routes for the disposal of High Volume Very Low Level Waste (HV-VLLW) to commercial landfill sites, in accordance with the objectives of UK Government LLW Policy and NDA Strategy and Plans. The company has been supporting WRG with the permitting exercise and public and stakeholder engagement programme in relation to a proposal at the Lillyhall Landfill Site which has resulted in the Environment Agency (EA) issuing a Permit for the disposal of HV-VLLW to the site.

EnergySolutions comments are set out below and relate to Site Allocations Policy 6 – Low Level Radioactive Waste and Site at Lillyhall (Reference AL31).

Site Allocations Policy 6 – Low Level Radioactive Waste

Site at Lillyhall (Reference AL31)

UK Government policy (Ref. 1) encourages the use of a wide range of waste routes for the long term management of LLW, in order to ensure the most effective use of the limited remaining disposal capacity at the Low Level Waste Repository (LLWR). Paragraph 5 of the policy states that with regard to LLW and HV-VLLW disposal to landfill, Government sees no reason to preclude controlled burial of radioactive waste from nuclear sites from the list of options to be considered in any options assessment, provided the necessary safety assessments can be carried out to the satisfaction of the environmental regulators. This supersedes paragraph 117

of Cm2919 (Ref 2). In accordance with national policy objectives, the availability of such landfill routes would help to ensure a more cost-effective approach to the NDA's publicly funded programme of civil nuclear site clean-up and that disposal capacity at the LLWR is only used for wastes that warrant a more highly engineered disposal solution. This could significantly extend the operational life of the recent vault constructed at the LLWR and potentially the lifetime of this specialised radioactive waste disposal facility.

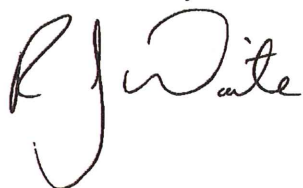
The NDA identifies a need for fit for purpose management of HV-VLLW in their April 2011 Strategy (Ref. 3) and state that following application of the waste hierarchy use of the most appropriate and proportionate disposal option should be sought, including diverting waste away from the LLWR. The NDA references further discussion of alternative disposal options in the UK Nuclear Industry LLW Strategy (Ref. 4), which amongst other options (including the development of disposal facilities at or adjacent to nuclear licensed sites) identifies the option of disposal of HV-VLLW to landfill type facilities. The UK 2011 Low Level Waste Strategic Review (Ref. 5) highlights the disposal of HV-VLLW and LLW to specified landfill as one of the options that can be considered for wastes with low levels of radioactivity and includes a summary of key infrastructure for the management of the UK's LLW which identifies the Lillyhall Landfill Site as a potential facility for the disposal of HV-VLLW.

The development of the Lillyhall Landfill Site to accept HV-VLLW from nuclear sites is consistent with the identified need for alternative, fit-for-purpose disposal solutions for such lower activity wastes. The Lillyhall Landfill Site is located in close proximity to nuclear sites at Sellafield, Calder Hall, LLWR and the Magnox Site at Chapelcross. Adequate disposal capacity is available to accommodate a significant proportion of forecast arisings of HV-VLLW from Sellafield decommissioning. The site is underlain by Quaternary clays and other sediments, which provide an effective barrier to the migration of radionuclides. The site is at sufficient elevation that it will not be affected adversely by the processes of coastal erosion or sea-level rise. A small number of disposals of radioactive waste have been made to the site previously under Exemption Orders relating to the Radioactive Substances Act 1993, including Naturally Occurring Radioactive Material (NORM) produced by the oil and gas industry. The site therefore has procedures for and experience in dealing with radioactive wastes. Following the receipt of a positive opinion from the EC under Article 37 of the Euratom Treaty, the Environment Agency has issued a Permit to WRG under the Environmental Permitting Regime 2010 for the disposal of HV-VLLW to the Lillyhall Landfill Site (Ref. 6).

Whilst it is acknowledged that there are uncertainties in the predicted volumes of future arisings of HV-VLLW, the 2011 UK LLW Strategic Review is clear that very large volumes of HV-VLLW which will exceed current disposal capacity will arise from the decommissioning of nuclear sites in West Cumbria, such as the Sellafield site, and will require new fit-for-purpose disposal facilities. Despite the lack of a detailed assessment of feasibility, land within the Low Level Waste Repository site near Drigg (CO35) and land within the Sellafield site (CO36) are included in Site Allocations Policy 6 for potential additional disposal facilities. In contrast, the Lillyhall Landfill Site is not an allocated site and is identified as another site considered. Given that in accordance with Regional Spatial Strategy Policy EM 13, in considering any proposals for new facilities, preference should be given to using established waste sites, *EnergySolutions* considers that the Lillyhall Landfill Site, which has a Permit from the EA for the disposal of HV-VLLW, should have been included in Site Allocations Policy 6 for the disposal of HV-VLLW.

EnergySolutions would also draw the Local Planning Authority's attention to the comments and concerns raised previously by WRG to Regulation 25 and Regulation 27 consultations in relation to the Site Allocations Policy for Low Level and Very Low Level Radioactive Waste and the Lillyhall Landfill Site (AL31), copies of which are include as attachments 1 & 2 respectively.

Yours sincerely



Richard Waite
President, UK and Europe
EnergySolutions EU Ltd

References

1. Policy for the Long Term Management of Solid Low Level Radioactive Waste in the United Kingdom, Defra, DTI and the Devolved Administrations, March 2007
2. Review Radioactive Waste Management Policy: Final Conclusions (Cm2919), HMSO, 1995
3. NDA Strategy, NDA, April 2011
4. UK Strategy for the Management of Solid Low Level Radioactive Waste from the Nuclear Industry, NDA, August 2010
5. UK Management of Solid Low Level Radioactive Waste from the Nuclear Industry: Low Level Waste Strategic Review, Issue 3, NDA, March 2011
6. Environmental Permitting (England and Wales) Regulations 2010, Decision Document, Disposal of High Volume Very Low Level Radioactive Waste at the Lillyhall Landfill Site, operated by Waste Recycling Limited at Joseph Noble Road, Lillyhall, Workington, Permit Number CD7914 (Effective Date 06/04/2011), Environment Agency, April 2011

Attachments

1. Comments Form, Regulation 25 Consultation, Cumbria Minerals & Waste Development Framework, Draft Site Allocations Policy, WRG, October 2009
2. Site Allocations Policies and Proposals Maps (Regulation 27) Consultation, Ref: Cumbria/ MWDF/ JC070210, WRG, 7th February 2010

From: Hubbard, Alan [alan.hubbard@nationaltrust.org.uk]

Sent: 05 December 2011 13:40

To: ECE - Minerals and Waste Development Framework

Subject: Cumbria MWDF: Site Allocations Policies and Proposals Map repeated Reg 27 Consultation - response from National Trust

Attachments: FINAL NT response to Site Allocns pref sites and policies2 5-2-10.doc

Dear Sir/Madam,

Thank you for your letter of 21st October 2011 (Ref RGE/P334-26) relating to the above consultation.

The National Trust has no additional comments to make to those previously submitted, in particular in its letter of 5th February 2010 – a copy of that letter is attached for convenience.

Lastly, attention is drawn to my amended contact details as set out below.

Kind regards,

Alan Hubbard

Planning Adviser

t National Trust

Please note amended contact details:

61 Oxford Road

MANCHESTER

M1 6EQ

Tel: 0161 234 9983

Fax: 0161 234 9989

Mob: 07876 544969

Email: alan.hubbard@nationaltrust.org.uk

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alan.hubbard@nationaltrust.org.uk
 Direct line: +44 (0) 161 925 4330
 8th February 2010

National Trust

Mr R Evans
 Principal Planning Officer
 Environment Unit
 Cumbria County Council
 County Offices
 KENDAL
 LA9 4RQ

Dear Richard,

Re: Cumbria MWDF Draft Site Allocations Policies and Proposals, Regulation 27 Consultation – response from the National Trust

Thank you for your letter of 11th December 2009 (ref: RGE/P334-005-001) regarding the above consultation.

The National Trust has previously commented upon the Site Allocations component of the MWDF and in particular it draws attention to its e-mail dated 4th July 2009 and its letter of 14th October 2009 commenting upon specific sites. Those comments remain the views of the National Trust and it is requested that they continue to be given consideration at this stage.

The Trust's views upon the Policies now presented for consultation have been formed following review of the latest consultation material and are set out below.

Response to Site Allocations Policies

Site Allocations Policy 1 – No objections.

Site Allocations Policy 2 – Objection to site BA24: Sowerby Wood Business Park extension maintained.

Para 4.249 does not appear to include a summary of the National Trust's representations in response to last autumn's consultation – as set out in our letter of 14th October, i.e.:

BA24 Sowerby Wood Business Park extension – *There remains concern about the overall scale of this possible facility and its impacts. In particular the fact that it cannot be accommodated on the site currently allocated for employment purposes but requires the use of greenfield land is considered to be inadequately dealt with – i.e. there is an adverse*

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President: HRH The Prince of Wales
 Regional Chairman: Professor James Keaton
 Regional Director: Tiffany Hunt

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 Registered charity number 205846

impact in terms of the need to allocate greenfield land and the site should be scored negatively as a result, not neutrally. The analysis also does not draw out the potential conflict with the use of nearby sites for leisure and recreation purposes; and it is unclear about the implications for designated nature conservation sites of international importance nearby from the range of processes that potentially would be undertaken – it is considered that there is a greater degree of uncertainty here than is acknowledged in the assessment.

Site Allocations Policy 3 – No objections.

Site Allocations Policy 4 – Objection to site BA10: Goldmire Quarry maintained. The Trust's previously expressed concerns are if anything now stronger given the clarification that non-inert landfill is being proposed, albeit it is acknowledged that the site is on the reserve list.

Overall it is considered that although this site is preferable to that Bennetts Bank (having regard to the environmental impacts of waste disposal activities at that site as set out in the Trust's submissions on the planning application and appeal) that does not lessen the concerns in respect of Goldmire Quarry. The scoring in the assessment table (page 151 of the consultation document) does not appear to have had regard to the feedback previously provided, including that from the National Trust, in respect of the potential heritage implications of development of the site for landfill. In addition wider landscape and heritage impacts were identified as likely as a result of necessary related works such those in respect of the access. It is also the case that the traffic associated with a landfill operation will itself have adverse impacts on the wider area, including noise impacts within Dalton town centre and it's Conservation Area.

Site Allocations Policy 5 – No comments to make.

Site Allocations Policy 6 – No objections; the removal of site M22 – Birkhams Quarry is welcomed and supported in accordance with the Trust's previous submissions.

Site Allocations Policy 7 – No comments to make.

Site Allocations Policy 8 – No comments to make.

In respect of sites **CO29 – Haig Enterprise Park** and **M22 – Birkhams Quarry** the decision not to include these sites as specific allocations is again supported, in particular having regard to the negative impacts upon the major coastal landscape initiative to the south of Whitehaven Harbour towards St Bees; however, it is considered that these matters remain inadequately identified and considered in the assessment.

Yours sincerely,

Alan Hubbard

Alan Hubbard

Land Use Planning Adviser (East Midlands and North West)

RG Evans
Minerals and Waste Policy Team Leader
Cumbria County Council
County Offices
Kendal
Cumbria
LA9 4RQ

Your Ref: RGE/P334-26
Our Ref: BLT/wms

30 November 2011

Dear Mr Evans

**CUMBRIA MINERALS AND WASTE DEVELOPMENT FRAMEWORK
SITE ALLOCATIONS POLICIES RE-CONSULTATION**

Your letter of 21 October invites comments on the above and I am writing on behalf of Burlington Slate Limited who previously made representations that extensions to Baycliff Hags and Kirkby Quarries should be included as Preferred Areas in the earlier version of the Site Allocations Policies.

The County Council subsequently made changes, endorsed by the Examination Inspector, that are now included as paragraph 3.25 recognising the importance of these quarries and that extensions will be assessed against Policy DC6 with favourable consideration given to proposals that are more sustainable than available alternatives. This gives some re-assurance to Burlington Slate and they do not wish to make further representations at this time about allocating specific extensions.

However, it remains the case that it is unlikely that sufficient slate can be extracted from the area that has planning permission at Kirkby Quarry to maintain production throughout the period covered by the Cumbria Minerals and Waste Development Framework. The County Council should be aware that revisions to the approved Quarry Development Strategy and other opportunities are actively being considered with the submission of one or more planning applications anticipated.

In this regard it is understood that the Site Allocations Policies do not include a Mineral Safeguarding Area for slate with that referred to in paragraph 3.24 relating to sandstone in the vicinity of the small Birkhams Quarry near St Bees. Core Strategy Policy 14 does of course state that 'resources of local building stones', that includes slate, will be safeguarded.



WM Stephens MSc MRTPI MICE CEnv CEng

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The blue-grey slate at Kirkby Quarry is obtained from the Wray Castle Formation that outcrops in a band up to 3 kilometres wide over a distance of some 12 kilometres from Lindal in Furness in the south to Kirkby in Furness in the north and continues in a narrower band north east from Millom. The most usable slate is found where the cleavage and bedding is close to right angles, as is the case at Kirkby Quarry, and only some of the Formation will be suitable to work. However, as with the extent of the other mineral resources that are safeguarded, all of the Wray Castle Formation should be included as a Mineral Safeguarding Area in the Site Allocations Policies.

Please get in touch if you have any queries on the situation at Kirkby Quarry or would like any further information on the geology of slate as a building stone resource.

Yours sincerely



WM Stephens

RG Evans
Minerals and Waste Policy Team Leader
Cumbria County Council
County Offices
Kendal
Cumbria
LA9 4RQ

Your Ref: RGE/P334-26
Our Ref: HKR/wms

2 December 2011

Dear Mr Evans

**CUMBRIA MINERALS AND WASTE DEVELOPMENT FRAMEWORK
SITE ALLOCATIONS POLICIES RE-CONSULTATION**

Your letter of 21 October invites comments on the above and I am writing on behalf of Holker Estates who previously made representations that site M27, Roose Quarry, should not be on the Preferred Area 'reserve list' and, because of the uncertainties about its availability for the extraction of sand, the M12 site on the other side of Rampside Road should be included as an Area of Search. Representations were also made that Goldmire Quarry should also not be on the 'reserve list' for the disposal of non-inert wastes.

Planning permission has now been granted to extend the timescale for the existing Roose Quarry until 31 August 2016 but it continues to operate under a twelve-month licence from the landowner. The inclusion of the Area of Search for a new sand quarry on the other side of Rampside Road in the Site Allocations is welcomed and the Estate is actively progressing a scheme of working with the intention of obtaining planning permission before the consent for the existing quarry expires. This includes a borehole investigation to confirm the depth and quality of the sand and gravel here but, as requested by Sue Brett, three copies of the following documents confirming the suitability of the site for sand extraction that were referred to at the Examination Hearing for the previous Site Allocations are enclosed:

- 'A Re-examination of the Quaternary Deposits of the Barrow Area' by W Grieve and AD Hammersley published in the Barrow Naturalists Field Club Proceedings of 1971;
- Chapter 8, Quaternary deposits, from the 'Geology and hematite deposits of South Cumbria' published by the Institute of Geological Sciences/ Natural Environment Research Council in 1977, and
- An extract from the 1:10,560 geological map for Sheet SD 26NW giving details of drift deposits for the Area of Search that was also published by the Natural Environment Research Council in 1977.

ENVIRONMENT
DIRECTORATE

05 DEC 2011

ENVIRONMENT
UNIT

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Although planning permission has been granted to extend the life of the landfill site at Bennett Bank, this is only until 2017 and, as confirmed in the Examination Inspector's report on the previous Site Allocations, there is a shortfall in provision for the disposal of non-inert wastes in the south of the County for the period covered by the Cumbria Minerals and Waste Development Framework. The current planning application for an integrated inert waste recycling and disposal facility at Goldmire Quarry is compatible with a scheme for the disposal of non-inert waste and it's inclusion in Site Allocations Policy 5 for additional non-inert landfill capacity is welcomed by Holker Estates as well the operators of the quarry, Neil Price Limited.

Please get in touch if you require any additional information in support of either of the above proposals.

Yours sincerely

A handwritten signature in black ink, appearing to read 'WM Stephens', with a stylized flourish at the end.

WM Stephens

and

PHOTOGRAPHIC SOCIETY

P R O C E E D I N G S

For the 88th to the 95th Years ended 31st March 1971

VOLUME X NEW SERIES

1971

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Barrow-in-Furness

by J. Kellett, Hon. General Secretary

During the period covered by this report membership of the Field Club and Photographic Society has fluctuated between a figure of 205 for the year 1964 and a maximum of 259 for 1967. Figures for the year 1970, whilst incomplete, indicate a paid membership of 244 which compares very favourably with previous years.

In 1965 it was decided to transfer meetings from the Alfred Barrow County Secondary School to the main hall of Holker County Secondary School and it is in these more pleasant and modern surroundings that our meetings are now held. Attendances at meetings have continued to be high and varied programmes of winter lectures have included many contributions from within our own membership.

Summer programmes of the Field Club have consisted of footpath walks, visits to places of historical interest, and botanical excursions, most of which have been well attended. Original field work has, in the main, been carried out by individuals rather than by group effort and work by these members constitutes most of the material for the present volume. Maintenance and preservation of public footpaths has, however, continued to be brought to the notice of local highway authorities and leaders have been active in clearing paths in preparation for outings. Several sites, mainly geological, have been reported to the Lake District Naturalists' Trust as being worthy of conservation and guides have been provided for neighbouring societies visiting the district on botanical excursions. Club members also attended meetings held by the Cumberland and Westmorland Antiquarian and Archaeological Society at sites of historical interest in the area. In the botanical field discoveries of less common plants have been made by members and a watch has continued on sites where these plants have been located.

As a regular feature of the summer programme two coach excursions have been organised each year to places of historical interest and these have proved to be so popular that they have been fully booked in advance.

During this period the Photographic Society has continued to flourish, the emphasis being on colour photography which is now firmly established as the successor to "black and white". Monthly colour slide competitions held during each winter programme and Annual colour slide competitions with neighbouring societies have also proved to be an attraction. Lancashire and Cheshire Photographic Union competition successes have been attained by individual members, and the entries representing the Society have been highly placed, particularly in 1966 with the award of the May Bamber Plaque for Colour Slides (2nd place). In 1970 3rd place was awarded to the Society and an individual award of 4th place in the section for home processed slides.

An innovation by small groups of members has been the presentation of colour slide programmes to a musical background with tape-recorded commentaries. Events to which the public have been admitted have also been held in the Public Hall, where trade colour presentations have been augmented by the work of members of the Photographic Society.

In concluding this report I am sure that all members would wish to join in an expression of thanks to Mr. W.K. Calvert for again accepting the responsibilities of Editor and to all members who have contributed, or assisted in any way, in making this issue of the Proceedings possible.

by W. Grieve and A.D. Hammersley, M.A.

Although an outline of this survey was given in the last volume of proceedings, further detailed work has occupied the years to 1970.

The authors have re-examined all available recent exposures of quaternary deposits in the area and at some exposures stone orientation counts have been carried out. Existing bore-hole records and aerial photographs have also been studied whilst an appendix to the paper notes the results of some pollen-analyses of post-glacial peat. The additional information now available has filled gaps and removed obscurities in the Pleistocene sequence of events most generally accepted by previous writers, though the revised sequence is only a provisional one, partly because of an apparent disparity between the stone orientations and the other evidence. Some new data relating to post-glacial sea-level maxima are also presented.

The One Inch O.S. Geological maps, sheets 48 (Barrow) and 58 (Ulverston) are in process of revision. That for Barrow is to be issued shortly, combining the solid and drift editions in one, and the memoir will be incorporated with that for the Ulverston sheet at a later date.

A short glossary of geological and botanical terms will be found at the end of the paper.

1. A Summary of the Literature

The drift deposits, which reach thicknesses of over 200 feet in some coastal localities and mask the indented relief of the solid rocks, form the surface features over most of the area.

Early accounts by Jopling, Binney and Aveline writing in 1843, 1848 and 1873 respectively, described only two glacial deposits, a boulder clay containing erratics, and deposits of sand and gravel. Aveline (11) noted the erratics of granite, porphyries, volcanic ashes and Coniston grits and slates in a fine matrix which varied according to whether it occurred over sandstone, Yoredale shales or Carboniferous limestone.

A threefold sequence of deposits, two boulder clays separated by a series of sands and gravels, recognised also in Cumberland and South Lancashire, was described in 1869 and 1871 by Mackintosh. The lower clay as seen generally in Furness was a yellowish brown "pinel" (stony boulder clay) attaining thicknesses of over 120 feet. The upper clay contained granite, generally had fewer and smaller stones than pinel and was characteristically sandy and loose in the upper part and more argillaceous and solid lower down.

A second type of lower boulder clay occupying coastal areas was best described by W.B. Kendall (a 26). It had a reddish matrix enclosing granite and a great variety of other West Cumberland igneous boulders, together with much limestone. The boulders of the upper clay corresponded closely with this lower clay, but with a great diminution in limestone. These two clays, with the intervening middle sands, were described as Irish Sea drift by Grace and Smith in 1922. They, and also Dunham and Rose in 1941, concluded that the triple sequence was a feature of the Irish Sea drift only, and that the boundary between this drift and the inland drift of Silurian and Carboniferous material

followed roughly the line of the meltwater channel from Goldmire to Roosebeck (Fig. 1). Grace and Smith found little difference between the upper and lower boulder clays, or tills, to use the term now current, but Dunham and Rose stressed the presence of much Eskdale granite in the upper till.

Grace and Smith (415) considered some of the middle sands and gravels to have originated as lenticular deposits in hollows on the surface of the till and suggested that they were not necessarily all of the same age.

Dunham and Rose found evidence of earlier glacial deposits in deep boreholes.

The middle sands and gravels were considered by most of the earlier writers to be inter-glacial. Grace (58) listed a few of the species of marine shells found. Grace and Smith (416) pointed to the apparent "intra-glacial" position of peat recorded from a boring at North Scale. Gresswell (93) however suggested that outwash sands may have accumulated in a temporary lake between two ice sheets at their confluent point and that lateral shifts of the ice junction could have produced extensive spreads of sands, with a till cover, such as comprise the cliffs at Beacon Hill, near Rampside.

Grace and Smith mapped a system of overflow channels (Fig. 1 omitting Poaka Beck) from a conjectured glacial lake Duddon and Gresswell mapped the main area of drumlins. Raised beaches and raised warps were described by Kendall (b 60) and Spencer (Steers 88). Infill in the sheltered channel is well shown by sections obtained during the construction of Barrow docks (Kendall b 56). The widespread post-glacial peat deposits, largely coastal, were first mentioned by West in 1805 (21).

2. The Stratigraphical Succession

A map of the solid rock surface beneath the drift was prepared which revealed some small valleys near the coast in the north of the area. North of Sowerby Wood a short valley fell from Oak Lea to the former site of Sandscale farm.

The following succession was obtained mainly from a study of the coastal sections on Walney and near Rampside.

<u>Barrow</u>	<u>Adjacent Areas</u>
Post-glacial (Blown sand, hillwash, ancient beaches, raised beaches, raised warp with peat)	as for Barrow
West Cumberland and Scottish drift (Upper gravels, Upper till, Middle sands and gravels)	Glacial lake clays, Superficial gravels
Mixed till	Low Furness till
Low Furness till	

(An early drift of sands, gravel and till has been inferred from a few borehole records but the evidence is not clear and is therefore not discussed.)

It has not been possible to recognise inter-glacials, nor inter-stadials, within the above, but the middle sands indicate some amelioration of climate.

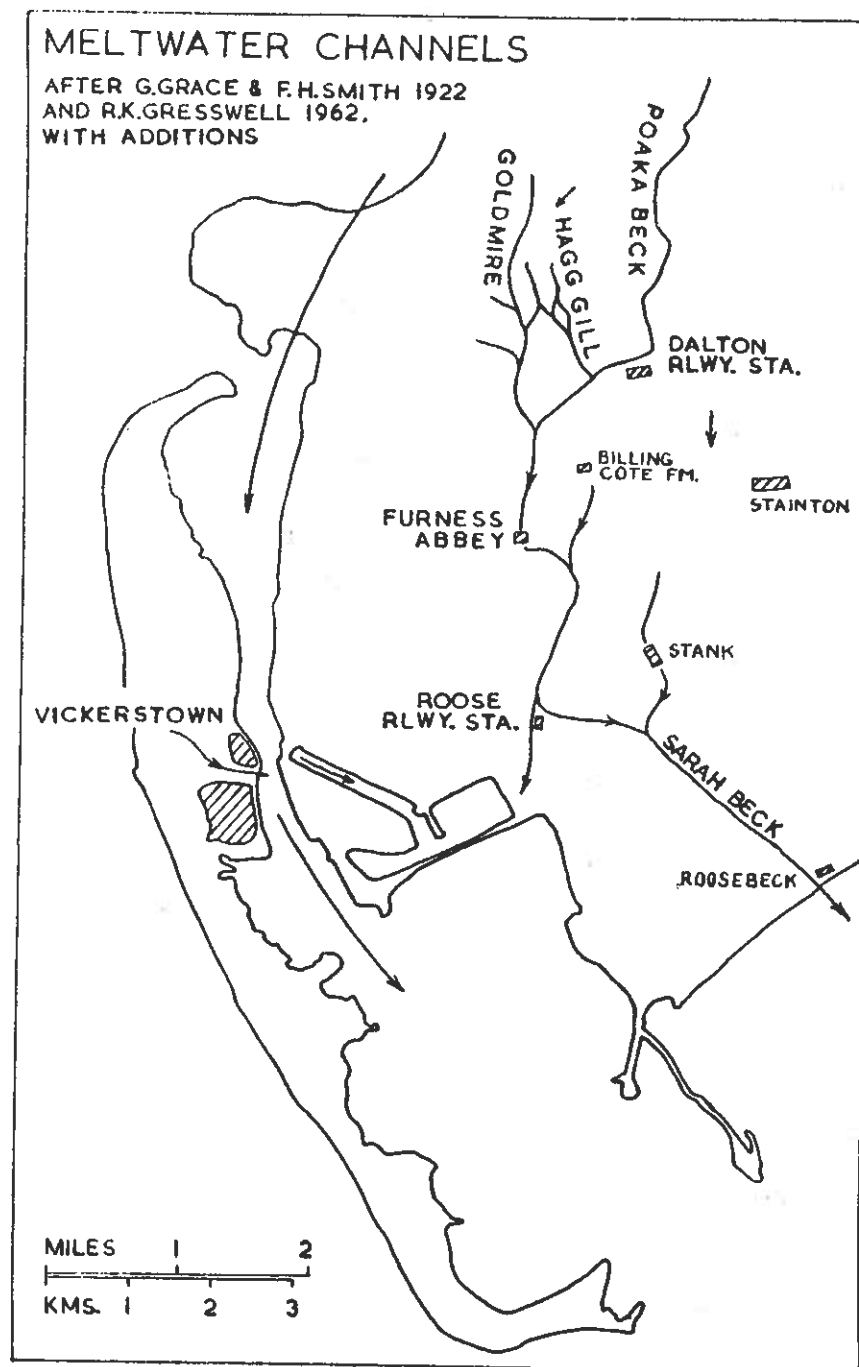


FIG. 1

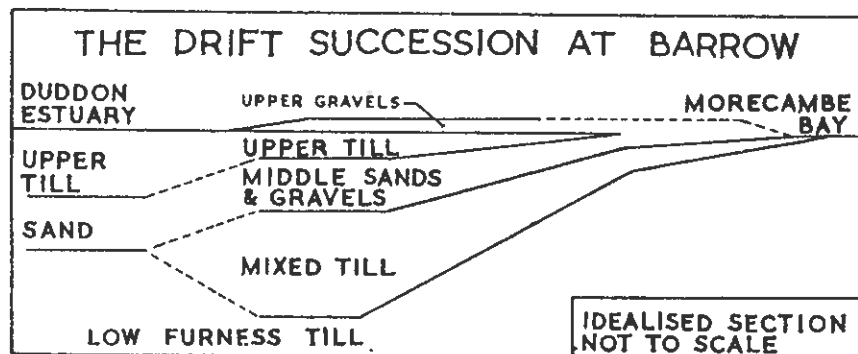


FIG. 2

Thicknesses cannot easily be given because borehole records show irregular lenses of sand and gravel, confusing the boundaries of the elements of the succession. However at Sandscale widespread thick sands give a definite horizon which may well be contemporaneous with other such deposits visible in the Roosecote/Rampside area. The till underlying the northern sands is absent or only a few feet thick, the sands themselves average 50 feet and the overlying till 70 feet. The southern sands are in general unbot-tomed, and the overlying till has not been seen to exceed 6 feet.

The succession is shown idealistically in Fig. 2 and is described more fully below.

(a) Low Furness till

This is a stiff clay containing Silurian and Carboniferous material, with only occasional erratics from the Borrowdale Volcanic Series and from intrusions. The predominant yellowish-brown colour becomes red, blue or dark grey over the varying out-crops of the Carboniferous. A thickness of 35 feet can be seen resting on limestone at Burlington Pit, which is the widest of the Park mining depressions, and at Yarlside mines a small subsidence exposes a thin deposit resting on red sandstone. It is well exposed in subsidences near Lindal and at Aldingham cliffs. This is the "Lower Boulder Clay" of Mackintosh, and it has not previously been proved present at Barrow.

(b) Mixed till

This is the "Lower Boulder Clay" of Grace and Smith, containing West Cumberland erratics. The present writers, however, conclude that this till is only partly West Cumberland in origin, because the upper till by comparison is found to contain a far greater proportion of these erratics.

Table 1 illustrates this distinction. Samples are arranged in descending order of frequency of their igneous stones, the stones which as will be shown later, indicate West Cumberland ice. A straight percentage of igneous to the total sample has not however been taken for two reasons. Firstly, leaching of carbonates down to about 8 feet from the surface was found to be common, and the loss of these limestone pebbles from some samples but not from others, could be misleading. Secondly all local rocks were found

SOME REPRESENTATIVE ASSEMBLAGES OF ERRATICS IN THE DRIFT.

Site	BURL' TON PIT	ROOSE COTE GRVEL	ORMS GILL	HARE HILL	MIDDLE HILL	GRAMMAR SCHOOL	B'HOUSE CLOSE POINT	YARL SIDE EAST	YARL SIDE WEST	LEONARD SCAR	BURL' TON PIT	YARL SIDE WEST			
Depth below ground level	3'	26'	30'	25'	4'	9'	8'	12'	60'	21'	3'	13'	5'	35'	19'
igneous group	70	66	62	55	50	47	43	36	22	22	20	20	10	3	2
igneous + grits group	X 100														
Lithology															
GRANITE	4	4	14	6	6	8	7	2	-	1	3	3	-	-	-
OTHER IGNEOUS & TUFFS	36	44	25	28	41	36	17	25	9	14	16	12	6	2	1
GRITS, ETC. (Ordov. & Silur.)	20	25	26	28	46	50	23	49	30	53	75	60	54	72	84
LIMESTONE & CALCITE	-	7	15	8	-	4	14	19	54	17	-	24	31	14	9
HAEMATITE	-	-	-	-	-	-	-	-	1	1	-	-	-	4	3
RED SANDSTONE (Bunter)	10	6	10	6	3	-	33	5	-	7	2	-	-	-	1
MISCELLANEOUS SEDIMENTARY	30	11	-	18	-	-	6	-	6	4	-	-	8	2	1
VEIN QUARTZ UNIDENTIFIED	-	3	6	4	2	-	-	-	-	3	2	1	1	4	1
	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Size and Concentration of Stones															
WITHIN 5 SQ. FT. #	-	-	-	-	1	-	1	5	-	2	2	2	2	1	10†
OVER 20 CM. 10-20 CM.	-	-	-	-	3	2	9	12	19	9	9	8	11	12	14†
WITHIN 1 SQ. FT. #	-	1	-	-	3	1	2	3	3	3	14	6	5	3	10†
OVER 5 CM. 2-5 CM.	2	7	-	-	6	15	13	8	16	14	26	13	21	21	20†
TOTAL	2	8			15	18	25	28	38	39	42	31	37	54†	

NOTES

At each site 50 to 100 contiguous stones were examined. Data from some former exposures were published in these Transactions in 1900 (Kendall a 30). * These areas refer to squares marked out on a cliff face, from which all protruding stones were removed and grouped according to the lengths of their longest axes. † Estimated, because the site was difficult of access.

NOTES

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 * These areas refer to squares marked out on a cliff face, from which all protruding stones were removed and grouped according to the lengths of their longest axes.
 † Estimated, because the site was difficult of access.

TABLE 1

to be irregular in their distribution, and a sudden increase in say, red sandstone when a glacier passed over a prominent outcrop, would involve complicated adjustments to the percentage of igneous obtained from that locality. It was possible to avoid these difficulties because far-travelled rocks, such as igneous, grits and graywackes are consistently distributed over wide areas, and the ratio of the igneous group to the grits group was found to be a simple and reliable standard for comparing different tills. Table 1 is arranged on this basis and the upper till is indicated, broadly, where the igneous alone exceeds 30% of the igneous plus grits.

At Hare Hill, South Walney (Fig. 3), the mixed till is overlain by a mass of sand thinning out northwards and southwards which is itself overlain by the upper till. The erratics found are summarised in Table 1 (Hare Hill 13 feet) and similar assemblages indicate the presence of the mixed till at Yarlside (east site) where it forms a 70 ft. cliff left by a mining subsidence, and also at the base of a cliff at Rampsides (Backhouse Close Point 21 ft.). Numerous other exposures in an easterly direction show a rapidly diminishing igneous content, and that at Leonard Scar is shown in Table 1.

Hare Hill and Burlington Pit, both already mentioned, are the only localities where a triple succession can be seen at present. The upper tills are similar at both sites and each shows a marked contrast with the till beneath the intervening sands, both in appearance and lithology. At Burlington Pit however, lithological examination reveals that the mixed till is absent, the sands and gravels resting directly on the Low Furness till. It seems probable that the upper part of the Low Furness till there is contemporaneous with the mixed till, as indicated on Fig. 2, thus tentatively equating the Burlington Pit sands and gravels with those at Hare Hill. (Alternatively it is the lower part of the upper till at Burlington Pit which passes laterally southwards into the mixed till, in which case the middle sands of the south are unrepresented at Burlington Pit.)

(c) Middle sands and gravels

Boreholes have entered numerous lenses of sand which could have been distributed by the oscillating confluence of the glaciers during the mixed till phase. By contrast, the very thick and extensive sand deposits visible in the Roosecote/Rampsides area would indicate some amelioration of climate, probably with separation of the glaciers. Therefore, despite the suggestion to the contrary by Gresswell mentioned in Section 1, it is preferred to consider all sands immediately underlying the upper till as a distinct element in the succession.

The best exposures are the cliffs at Beacon Hill near Rampsides with at least 40 feet (unbottomed) of fine sand with occasional bands of clay and rare patches of pebbles, and an extensive gravel pit one mile farther north at Roosecote where the proportion of gravel is very high and current bedding pronounced. The highest working face reached 100 feet O.D.. The upper till is exposed to show thicknesses varying from 6 feet to nil, but till encountered in the lower parts of the workings was unfortunately not exposed when the sand-pit was being studied. Granite pebbles are abundant. The area of these deltaic gravels worked at present shows some pronounced dips between NNW and NE, also an infilled trough apparently falling ENE, while at higher levels two areas show distinct dips SE and SSE respectively.

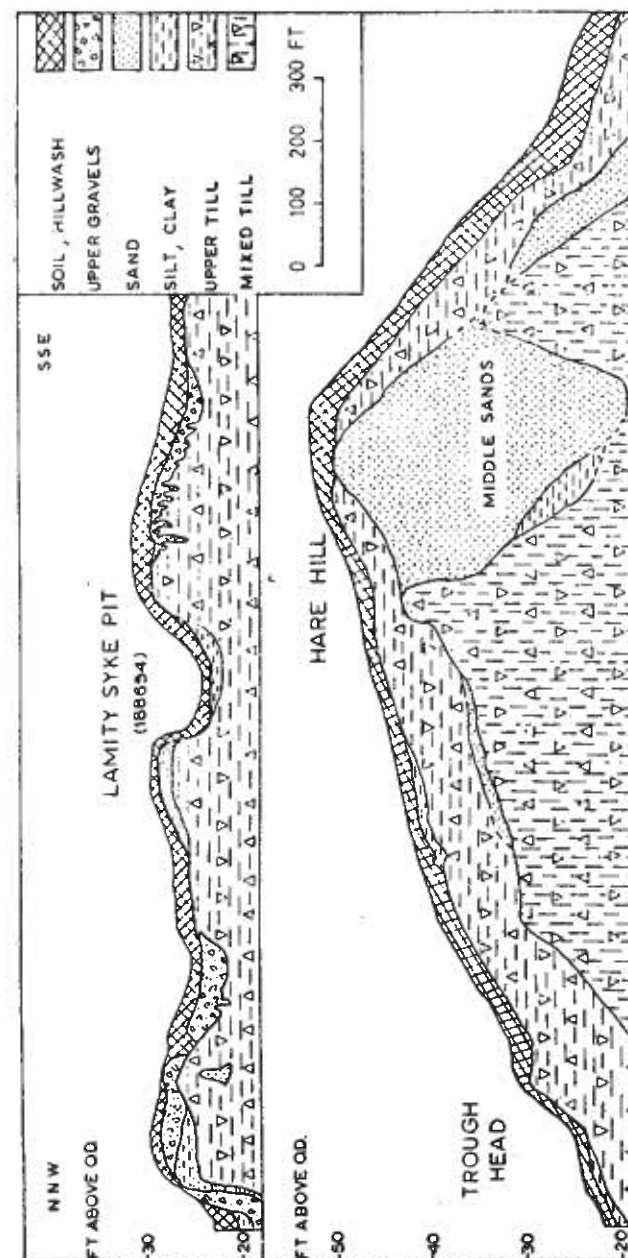


FIG. 3 THE DRIFT SUCCESSION AS SEEN IN THE CLIFFS OF WALNEY ISLAND

At Hare Hill middle sands are present in two lenses (Fig.3). At Burlington Pit for 100 yards along the north cliff is a deposit of an average thickness of about 12 feet resting on till at about 80 feet O.D.. The eastern end consists of unsorted boulders, gravel and sand. At the western end a boulder bed is overlain by layers of clay and fine sand, in turn overlain by current-bedded sand. The sharp junction of these two contrasting deposits is probably the site of an ice contact with morainic material. The boulders and pebbles are about 80% limestone and haematite. A large sample however showed an igneous/igneous + grits result of 9% and the sand contains coal fragments and minute shell fragments, both found also in the Roosecote/Beacon Hill sands. Meltwater from the Irish Sea glacier therefore contributed to the formation of this deposit. Several other exposures may be seen at Burlington Pit and boreholes encountered other thick deposits in the immediate vicinity.

From Dalton and Goldmire southwards the sides of the main meltwater channels carry patches of roughly sorted gravels, usually lime-cemented. Three examinations showed igneous indicators of (a) 11% at 125 feet O.D. at the confluence of Goldmire and Poaka Becks, (b) 38% at 60 feet near Park House Farm and (c) 33% at 60 feet in a trench near the access road to Holbeck Farm. In general these gravels are probably largely sub-glacial in origin. The Goldmire Valley boreholes record thicknesses of gravel and sand as much as 45 feet with very little clay.

North of Newton, within or beneath the mixed till, boreholes show one area of at least 12 acres where 30 feet of gravel lie at 200 feet O.D. beneath 30 feet of till.

(d) Upper till

Exposures are numerous, particularly as cliffs on Walney. The till is characterised mainly by a relatively high igneous content, and it is usually less stony than the mixed till (see lower part of Table 1). Shallow exposures are leached of carbonates, but at the base of some cliffs and in Burlington Pit at 25 feet and in Ormsgill brick pit, is found a calcareous matrix with a low percentage of limestone. Deep peat-filled hollows on north Walney described in the last volume of proceedings (7) were most probably dug in search of unleached clay and could be "marl pits", described by Jopling (67) and Kendall (c 37).

The thin upper till present along the cliff tops from Roosecote to Beacon Hill may extend inland where tarns are present, i.e. as far as Moorfoot and Oaklands, but farther east it has not been seen, and only gravel is visible, until near Leece the mixed and Low Furness tills appear. It is noteworthy that the SSW drumlins are the only evidence that Low Furness ice affected this locality during the upper till phase.

(e) Upper gravels, other superficial gravels, glacial lake clays

Thin bands of gravel of West Cumberland origin, up to 3 feet thick and poorly sorted, overlie the till south of Middle Hill near Iamity Syke Pit (Fig. 2), and are present again at Hillock Whins. The former deposit shows striking frost-heaving. Grace and Smith (416) mentioned these gravels in the context of the middle gravels but there can be little doubt that they are an additional element in the glacial succession and were laid down in the final retreat. Former exposures of upper gravel have been recorded at several sites in the built-up area.

An area of about 4 square miles enclosing Roosecote, Leece, Roosebeck and Rampside is spread with sand and gravel of West Cumberland origin. The apparent absence of the upper till over most of the area, already mentioned, and the absence of suitable sections, leaves doubt as to whether these gravels may not be partly or even largely, the middle gravels. North Hill and Scarbarrow near Leece, and high ground near Old Holebeck, are drumlins capped by this gravel, yet the surface of the intervening valleys consists of mixed or Low Furness till. This is difficult to explain unless by a brief over-riding by the Irish Sea ice margin, of stagnating tongues of Low Furness ice occupying these valleys. The gravel is extensively level at 50 feet O.D. south-east of Leece and on either side of Sarah Beck near Moss House, suggesting a glacial lake-level of some duration. A bench in till at 50 feet O.D. east of Roose village may be associated with such a lake.

Surface gravels of the Low Furness ice are sectioned at Aldingham cliffs, Mouzell and elsewhere.

At Roosebeck, the surface of the drumlins consists of gravel of West Cumberland origin. Temporary sections along their eroded coastal margin showed reddish-brown lake clay and silt at 25 feet O.D., the base not being seen. North of Ireleth, the beck below Tippin's Bridge has cut a deep section into lake clay which is capped at about 100 feet O.D. by a thick accumulation of rock and clay debris from the slopes of Kirkby Moor. This confirms Grace and Smith's observation of a 100 feet stage in their glacial lake Duddon. Gresswell (91) described Lakes Urswick and Roosebeck.

(f) Late-Quaternary raised warps and beaches

In coastal areas grey clay and silt enclose peat deposits (see appendix). The highest levels, dating from the mid-postglacial transgression, constitute the low ground extensively and most of the ancient beaches rest on it. The surface of this warp at Roosebeck Moss is at 17 to 18 feet O.D. and it also lies at this height on Walney from Tummer Hill to Biggar and among the low hills of drift south of Biggar. Peripheral heights of up to 23 feet have been found against rising ground, due probably to wave action and admixture of material from the land (see Fig. 3). The warp also forms that part of the Island between Hillock Whins and Trough Head, and extends for about a mile south of South End farm. In these two areas, being somewhat farther out into the estuary, the clay surface is a little lower, 15 to 16 feet. No definite benching has been observed, though between Biggar Bank and Biggar Dyke the clay surface is slightly undulating. The surface may either step or slope down to the present salt marsh, with stable turf persisting down to 16 feet O.D.. Present mean spring tides reach just over 14 feet O.D., and taking their transgressional equivalents as 18 feet O.D., sea level is now lower by 4 feet, if the tidal range has not changed.

The ancient beaches attain heights of 20 to 26 feet O.D. (Table 2). North of Earnse Bay caravan site the modern storm beach was found to be the same height, 22.8 feet O.D. as shingle 230 yards inland which is backed by much degraded sand cliffs. Intervening exposures of the shingle were respectively 23.5 and 21.3 feet O.D.. The antiquity of the northern continuation of this shingle, and likewise of that at Sandscale Haws and South End, is confirmed by the presence of Secondary Neolithic sites, though these have not yet been subjected to absolute dating techniques (Barnes and Smith, this volume; Barnes and Hobbs). The evidence at this exposed position therefore is that sea level has not

POST-GLACIAL ANCIENT BEACHES			
Locality	Maximum height in feet O.D.	Approximate Dimensions	Characteristics
Sandscale Haws		1 mile long	shingle ridges $\frac{1}{2}$ mile out from cliff line
Walney, N. End and Earnse Bay	23	3 miles by 300 yards	shingle ridges with recurved spits
Biggar Bank (sectioned by sea at Bent Haw)	25	1 mile by 200 yards	shingle spit joining two hills of drift
Snab Point to Rape Haw		1 mile by 100 yards, intermittent	
Walney, S. End	approx. 23	triangular, 1 mile base to apex	shingle ridges with recurved spits
Westfield Point	20	350 yards by 60 yards	70 yards out from cliff line
250 yards N.W. of Beacon Hill (rampside)	26	length 300 yards	remnant of shingle spit
South-east of Beacon Hill	22	length 100 yards	backed by cliff line
North of Goadsbarrow	25	500 yards by 200 yards	well-spaced ridges of shingle and sand
Note Sand flats, with no visible shingle, at Sandscale, Tummer Hill playing fields and opposite Hilpsford are excluded because in section they lack any structure which would confirm that they are tidal in origin. At Bent Haw, 1 ft. of fine sand overlying the shingle has been included as tidal because of an abrupt junction with coarse sand above.			

Table 2

changed appreciably in several thousand years.

The highest beach found, near Beacon Hill, is cliffed to expose patinated shingle reaching 26 feet O.D.. It is truncated to the S.E. probably by modern wave action. To the N.W. its height diminishes gradually. A short trench at one point revealed a westerly beach slope of about 10° . Augering confirmed that the beach terminated against the cliffs of glacial sand. It appears to be the remnant of a shingle ridge perhaps formed across a small embayment. The modern storm beach alongside it is at 20 feet O.D.. The raised beach was formed over warp, and in a position which was partially sheltered by the mud flats of what is now Walney Island. Perhaps this is the only remnant of earlier and higher beaches, though their absence from the long-accumulating shingle at Earnse Bay has yet to be explained decisively.

The great tidal range of $28\frac{1}{2}$ feet at Barrow is only one foot more than at Silloth near which raised beach maxima of 32.7 and 30 feet O.D. have been recorded (Dixon et al.). There is a beach at 28 feet at Ravenglass (Trotter et al. 118) but the tidal range there is unknown to the authors, though that at Whitehaven is $2\frac{1}{2}$ feet less than at Barrow. The existing beaches at Barrow therefore accord with a southward decline in raised beach maximum heights.

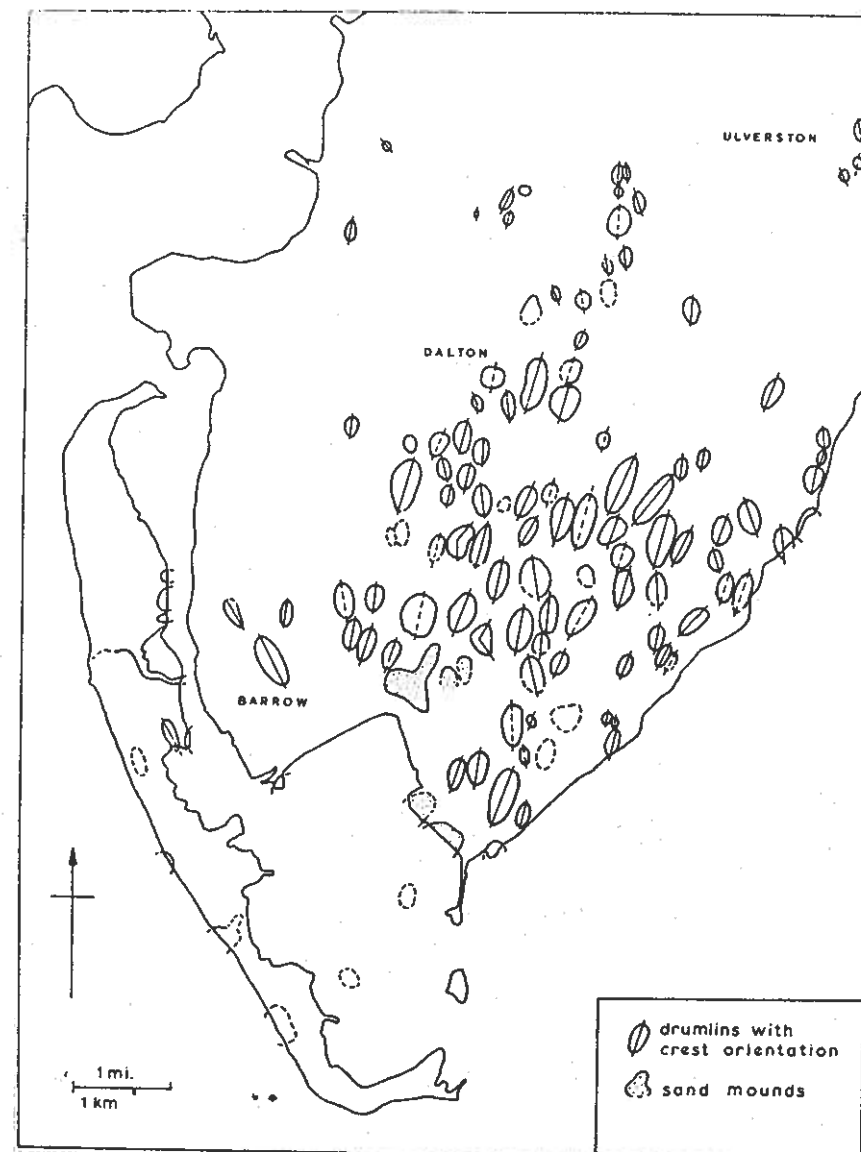


FIG. 4 DRUMLINS IN THE SOUTH OF LOW FURNESS PLOTTED FROM AERIAL PHOTOGRAPHS AND SUPPLEMENTED BY A GROUND SURVEY WITHIN THE BUILT-UP AREA OF BARROW

3. Topography

(a) Drumlins

The drift is well moulded into drumlins, as Fig. 4 shows. There is, however, a notable scarcity of drumlins in the west of the area. It is generally agreed that the axes of drumlins are parallel to the direction of ice flow and the drumlins of the south of Low Furness have a marked orientation NNE-SSW with a secondary frequency axis NNW-SSE seen especially in the west. In the vicinity of Roosecote and Rampside, sands and gravels with a sparse till cover are moulded into drumlins. Examples of drumlin formation over sands have been recorded near Carlisle (Hollingworth 326). It should be noted that the drumlin axes shown in Fig. 4 are those of the moulding of the crests of the hills and are not necessarily their long-axes.

(b) Meltwater channels

In addition to the meltwater channels mapped in greater detail by Grace and Smith, and Gresswell, Fig. 1 shows an associated channel at Stank mentioned by Smith F.H. (18) and a short channel east of Greenscoe Crags. It also shows the well marked valley on Walney discharging into Walney Channel at James Dunn Park, Vickerstown, which appears to have originated as a meltwater channel. Channels across the neck of Sandscale Haws and under the dock system are inserted on borehole evidence. The two S.E.-flowing channels suggest a S.E. ice movement at a late stage. The channels cut in limestone at Goldmire are both numerous and deep. It is unlikely that they were cut subaerially by the weak meltwater suggested by the sparse upper gravels. The high water level indicated by the deltaic middle sands at Roosecote also argues against subaerial formation at that time. It is suggested that they are mainly sub-glacial in origin.

4. Orientation of stones in the till

The preferred orientation of stones in the till was ascertained at 19 points (Fig. 5). The method was that described by West and Donner, and involved measuring the orientations of 50 to 100 stones from one spot in the clay and plotting the results as a rose diagram to show which directions were the most frequent. An ENE-WSW orientation was general. There were, however, two notable exceptions. The most striking was at the large excavation at Thorncliffe Road service reservoir. The direction indicated is the average of 3 counts at different depths, giving orientations between N-S and NNW-SSE. The other exception was a pronounced SSE-NW orientation in the Low Furness till at Burlington Pit. In a fourth count at Thorncliffe Road, at Ormsgill and at Hagg Hills no clear preferred orientations were found. At Backhouse Close Point Fig. 5 shows the average of two sites, the counts differing by only 16°.

It will readily be noticed that these orientations (except at Thorncliffe Road) are not in alignment with the drumlins nor with the striae. Also, as will be shown later, they do not fit all the directions of ice movement indicated by erratics.

At Thorncliffe Road, although Fig. 5 indicates mixed till, the upper till, or both, may actually have been present. The presence of about 70% limestones rendered the samples inadequate for the later method of lithological counting.

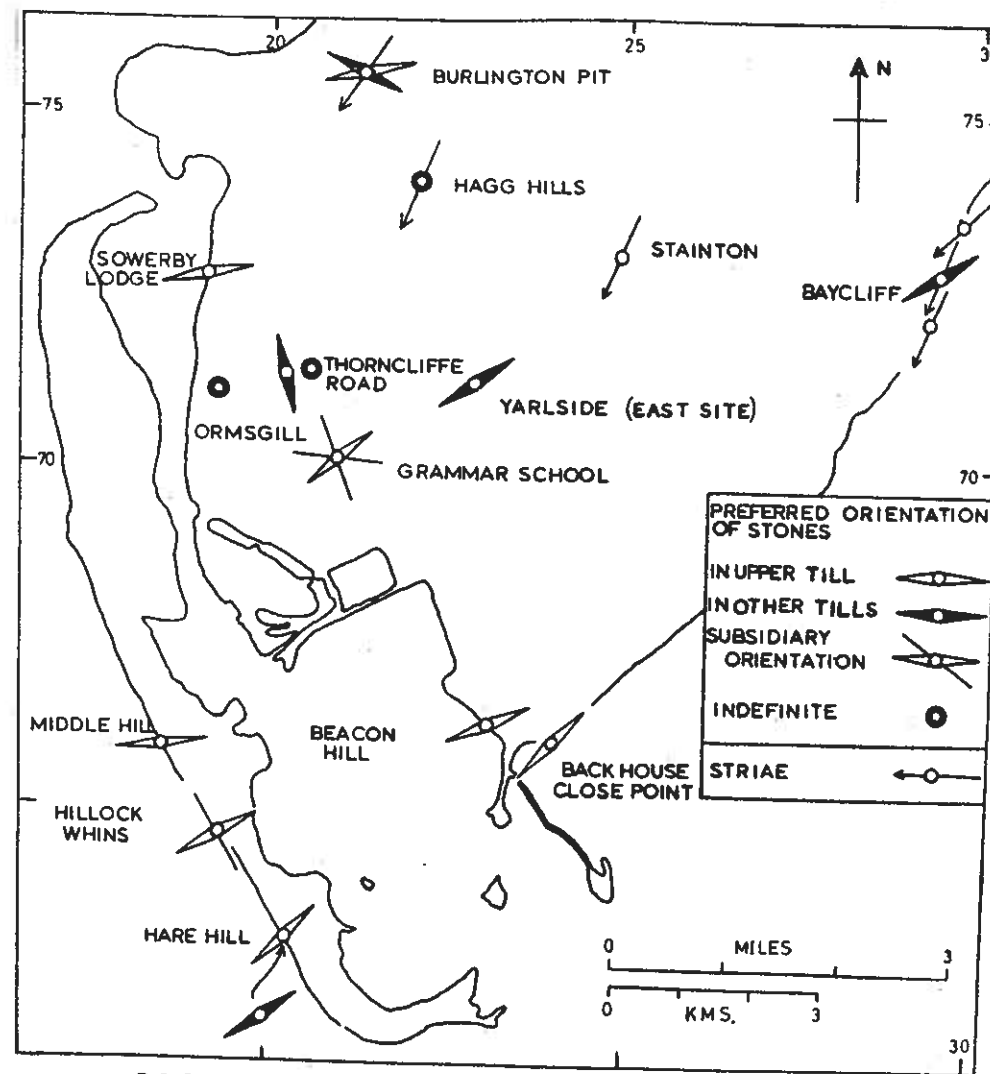


FIG. 5 SITES OF EXAMINATIONS OF STONE ORIENTATIONS IN TILL, AND OF STRIAE

(b) Analysis of the results

(i) It has been generally recognised that stones in till usually lie with a preferred orientation parallel to the direction of ice flow and similarly that drumlins also lie with their axes parallel to the ice flow. The ENE-WSW stones do not accord with the NNE-SSW drumlins. This anomaly is found even where the site is actually within a well-marked drumlin, as at Yarlside.

(ii) Only at Thorncliffe Road are the stones parallel to the axes of neighbouring drumlins.

(iii) It has, however, been demonstrated that a preferred orientation transverse to the direction of ice flow may occur (Banham). One of the authors has noted a marked transverse position of stones in till resting on a freshly-striated surface at Millough Bay, Co. Down. If such had been the situation here the stones would still be 45° out of alignment with the prevailing NNE-SSW drumlin direction. In the west of the area, however, a transverse orientation would be entirely in keeping with the NNW-SSE drumlins there.

5. Distribution of Erratics.

Approximately 90 counts were made, involving the collection, preparation and identification of some 7,000 stones. In line with previous research it was found that igneous rocks, and in particular granite from Scotland and West Cumberland, were the most useful erratics. It is the presence of granite which proves that the other igneous rocks, from the Borrowdale Volcanic Series, came from West Cumberland, and not merely from the Dunnerdale Fells or the west of the Duddon estuary. The igneous rocks intrusive into the Silurian account for less than 1% of the erratics. Erratics similar to those of the Silurian of Low Furness came from Black Combe and Scotland.

Marl and soft siltstone are present in the upper clay, and account for most of the 30% of miscellaneous sedimentary rocks indicated on Table 1 under Burlington Pit, 3 feet. Borings taken through the basement beds of the Carboniferous near Askam usually encountered marl in quantity, but Permo-Triassic rocks under the Duddon estuary are also a possible source of these soft stones.

Flint, found in the upper till and middle gravels, may have come from a possible undersea outcrop of chalk connected with that of Antrim (Barnes and Hobbs 28). Amongst the several colours of flint found on the Walney beaches are yellow, red and pink iron-stained flints which are similar to those in Antrim (Charlesworth 373).

Occasional marine shells, and many fragments, indicating the passage of ice over the Irish Sea bed, were found in the upper till and the middle sands and gravels.

Fragments of coal fragments in the middle sands also came from the north-west.

6. Conclusions

It is evident that the glaciation of this area has been most complex, probably due to the mountainous nature of the vicinity and the convergence of ice from the east-north-east, north, and north-north-west. It is felt that yet more facts must be brought to light before the full story can be told, but the following main conclusions are suggested as fitting the recorded observations.

- (1) All the visible drift was deposited during the last (Weichselian) glaciation.
- (2) Low Furness till was deposited mainly from the north, north-east and east-north-east from the ice sheet that covered the Lake District and later from a piedmont glacier across the south of Low Furness.
- (3) The Irish Sea glacier coming from the north-north-west became stronger relative to the Duddon and Low Furness ice, which from time to time it pushed away from the tip of the peninsula, adding its own distinctive erratics to the till deposited there.

- (4) Amelioration of climate resulted in a separation of the glaciers. To the south of Barrow the Irish Sea glacier produced thick extensive middle sands and deltaic gravels reaching 100 feet O.D.. To the north of Barrow also, at Sandscale, extensive sands reaching to ordnance datum were laid.

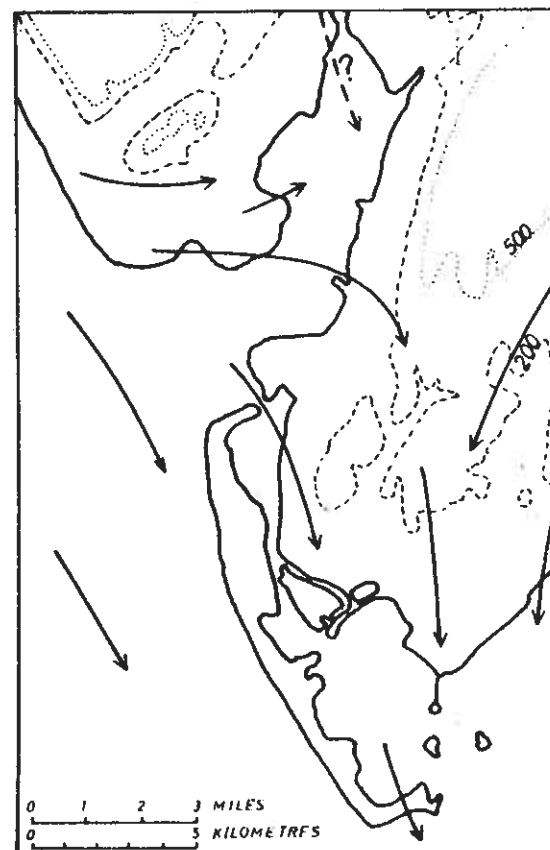


FIG. 6

SUGGESTED ICE
MOVEMENT DURING
THE DEPOSITION
OF THE UPPER
TILL ACCORDING
TO ERRATICS,
STRIAE AND DRUMLINS
AT BARROW

- (5) Deterioration of climate brought a lateral readvance of the Irish Sea glacier which left the upper till as far as the Goldmire system of meltwater channels. Drumlins in the west also demonstrate the strength of this movement, but elsewhere the drumlins show that ice from the north-north-east regained sufficient strength to deflect it. (Fig. 6). At the confluence of the glaciers gravel and sand from the Irish Sea glacier were added to the middle series for a mile south and south-east of Leece, in lake water reaching 50 feet O.D.. Also the upper till was only poorly developed over middle sands situated near the confluence, i.e. from Roosecote to Beacon Hill. Lacustrine clays were left at 100 feet O.D. north of Ireleth, and glacial lakes occurred at Urswick and Roosebeck.
- (6) Final downwasting of the Irish Sea ice produced thin and sporadic gravels over Barrow and Walney.
- (7) Mid-postglacial raised warps decline seawards from 18 to 15

feet O.D., and carry ancient beaches ranging in height from 26 to 20 feet O.D.. The beaches confirm a southward decline in heights along the Cumberland coast. Both warps and beaches suggest that the post-glacial sea level maximum at Barrow was perhaps 4 feet higher than the present.

(8) The results of the stone orientation counts cannot be reconciled with the other evidence of the directions of ice movement except in the west of the area.

APPENDIX ON THE RESULTS OF POLLEN-ANALYTICAL STUDIES ON THE

FORESHORE OF SOUTH WALNEY

by P. Oldfield, Ph.D.

Four lenses of organic deposit have been sampled, the three lowest from outcrops lying on the foreshore within the present day tidal range and the highest from a boring nearby and just landwards of the present low cliff line at Iamity Syke (SD 188/655). The sites are shown on Fig. 7. The resulting stratigraphic and pollen-analytical records are shown in Fig. 8.

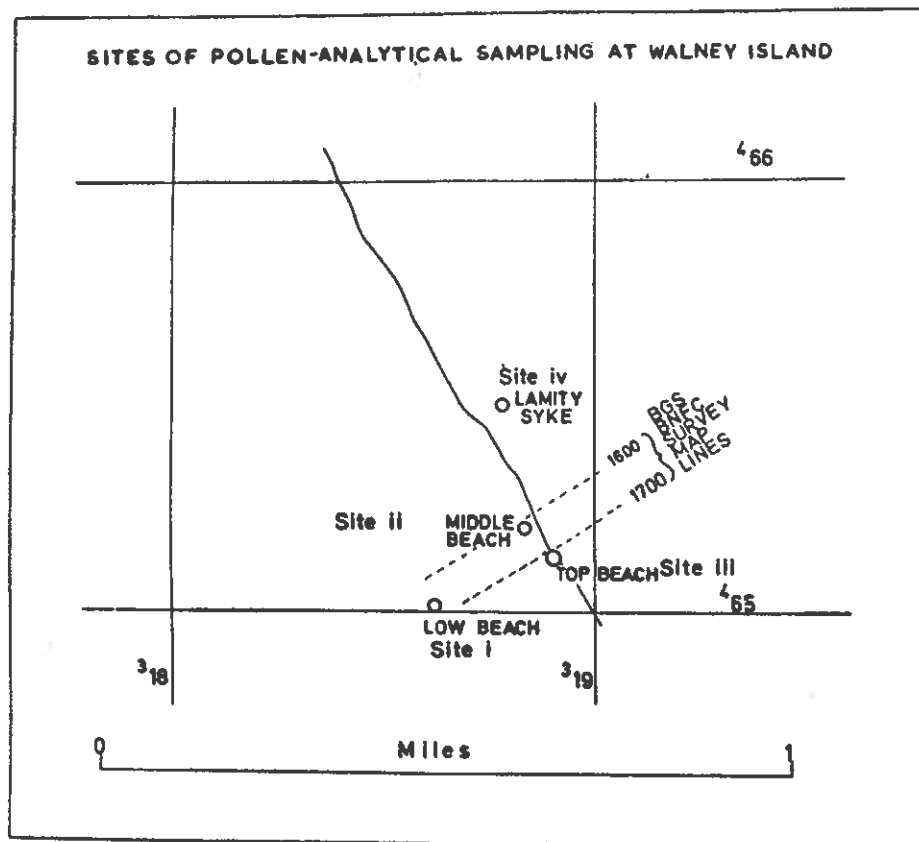


FIG. 7

A. Stratigraphy and Pollen-Analysis

Site (i)

Two samples were taken by W. Grieve from a narrow lens of nekron mud overlying drift close to LWMOT. The tree pollen record in both samples is exclusively of *Betula* and *Pinus* whilst *Salix*, *Juniperus* and a number of anemophilous herb pollen types (e.g. *Artemisia* and *Rumex*) are especially abundant in the lower sample. The pollen spectra and especially the *Juniperus* maximum indicate a date at the beginning of British Pollen Zone II or Zone IV.

Site (ii)

A poorly represented and much eroded thin smear of grey clay overlies the following stratigraphic record at the point of sampling

0-1 cm.	Nekron mud
1-15 cm.	Woody carr-peat with <i>Phragmites</i> stems towards the base
15-25 cm.	Sphagnum peat
25-40 cm.	Nekron mud
At 40 cm.	Coarse gravel (reworked drift)

The tree pollen spectra from the bottom two samples are dominated by *Betula* whilst the record of the anemophilous herbs is low, indicating a date in Zone IV/V as defined by Walker (1955, 231). Above this, all but the topmost sample show pollen analytical changes which establish a close correlation between this part of the sequence and the early part of Zone VI as defined and subdivided at Hawes Water (Oldfield 1960a, 201). In the uppermost sample, the relatively high *Pinus* and *Alnus* values together with the virtual absence of any open ground indicators date the sample to the Zone VI/VIIa transition.

Site (iii)

Here a 20 cm. thick lens of carr peat lies sandwiched between grey silty clays. The high *Alnus* pollen frequencies indicate a date later than the Zone VI/VIIa transition.

Site (iv)

The following stratigraphic record was obtained from the boring used for the pollen samples:-

0-180 cm.	Grey, silty clay
180-281 cm.	Woody carr-peat
281-300 cm.	Nekron mud
300- cm.	Impenetrable sand

The lowest sample with its high *Betula*, *Juniperus* and herb pollen frequencies dates from Zone IV whilst the sample from only 5 cm. above this includes *Quercus* and *Corylus* pollen indicating an early Zone VI age.

The samples above this show the opening of Zone VIIa, beginning with increasing *Alnus* and decreasing *Betula* and *Pinus* frequencies.

B. Relationship to Post-glacial Land and Sea-level Change

The lowest peat dating from either late-glacial or earliest post-glacial times cannot be closely related to sea-level at the time on the basis of the present evidence. The nekron mud is a fresh water deposit indicating lacustrine conditions presumably

developed in a hollow in the local drift. Sea-level must have been at least 10'-15' below its present height at the time.

The Site (ii) peat shows early post-glacial fresh-water accumulation truncated in Zone VIb, a period of low lake levels at other sites in the area (Oldfield, 1965, 250). Resumed accumulation of nekron mud then clay occurred close to the Zone VI/VIIa boundary. The clay appears to be similar to the marine alluvium deposited as a result of the culmination of the mid-postglacial transgression along the local coast as indicated at Silverdale Moss and elsewhere (e.g. Oldfield 1960a, 204).

The earliest samples at Lamity Syke indicate very slow early post-glacial lacustrine accumulation apparently truncated or discontinued early in Zone VI. The stratigraphic change at 281 cm. leads to the accumulation of peats dated to Zone VIIa, and these in turn are eventually overlain by the silty clay of the local marine alluvium.

The parallel course of accumulation in the Site (ii) peat and at Lamity Syke indicates the following sequence of events:-

- 1) Early post-glacial fresh water accumulation truncated or discontinued before the end of Zone VI.
- 2) The flooding of both sites leading to a rapid succession from fresh water to marine accumulation at the lower site but to a longer period of fresh water lagoonal accumulation at Lamity Syke before the deposition of the silty marine clay there.

The narrow peat lens at Site (iii) dates the marine clay enclosing it there to some period later than the Zone VI/VIIa transition and probably points to the brief, temporary development of lagoonal conditions.

The evidence clearly indicates that sea-level locally was approaching its maximum post-glacial height at the Zone VI/VIIa transition and that it continued to give rise to the accumulation of marine alluvium around and above the present high tide mark at least during some part of Zone VIIa.

C. Comments

(i) The present evidence, especially from Site (ii), together with the data from Silverdale Moss (Oldfield, 1960a, 214) and Helton Tarn (Smith, 1958, 375), shows that the last stages of the transgression reached a point at or just above present high tide level at the Zone VI/VIIa boundary. This presents a consistent picture of the latest part of the mid-postglacial rise in sea-level around the head of Morecambe Bay.

(ii) By contrast, the present evidence highlights a lack of detailed consistency from site to site in the pollen-analytical age of the marine/fresh water contact which apparently marks the end of direct tidal influence at each point. At Silverdale Moss, where the clay/peat contact appears to indicate actual marine regression, peat accumulation was resumed immediately after the Zone VI/VIIa boundary. Similarly, at Foulshaw Moss and Nichols Moss in the Lyth Valley (Smith 1959, 111 and 119), at Eilerside Moss in the Leven Valley (Oldfield and Statham 1963) and at Heathwaite Moss (Oldfield unpub.), peat deposition began above a plain of tidal clay at the Zone VI/VIIa transition. However, at Lamity Syke on Walney, at Kirkby Pool in the Duddon Valley, north of Haverthwaite in the Rusland Valley (Oldfield 1958, 100) and at Helsington Moss in the

Lyth Valley (Smith 1959, 115) marine accumulation continued at least through to a later stage in Zone VIIa. A minimum inference from the above comparisons is that sea-level remained more or less constant for some time after the beginning of Zone VIIa, leading to contemporary marine and fresh water accumulation in adjacent areas presumably through changes in the pattern of deposition and obstruction along the indented coastline. The radiocarbon dating of the regression at Silverdale suggests an age of between 4000 and 3700 B.C. (Oldfield 1960b, 115) whilst a single radiocarbon assay from the base of the peat at the late accumulating Helsington Moss gave a date of 3327 ± 120 years B.C. Sea-level therefore, probably remained relatively constant in the area for around 300 years at least.

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Glossary

Anemophilous	normally wind-pollinated
Argillaceous	clayey
Carr	willow and alder scrub growing in fen peat
Drift	..	..	glacial deposits; originally so named when drifting ice was believed to be the transporting agent
Drumlin	..	..	Irish term for a small hill; a hill of drift, oval in plan
Graywacke	..	..	dark grit or coarse sandstone, strongly cemented and characteristically developed among the older formations
Igneous rocks	..	..	lavas, granites, etc.
Interstadial	..	..	a relatively mild period separating cold periods (stadia) within a glaciation
Lacustrine deposits	..	..	lake deposits
Larl	..	..	clay or loam mixed with lime
Nekron mud	..	..	organic mud
Porphyry	..	..	igneous rock containing large crystals in a fine-grained groundmass
Till	..	..	boulder-clay
Transgression	..	..	i.e. of sea over land as sea level gradually rises
Tuff	..	..	rock formed of fragments thrown out during a volcanic eruption
Warp	..	..	an alluvial deposit
English plant names:-			Artemisia-mugwort, Betula-birch, Corylus-hazel, Phragmites-common reed, Pinus-Scots pine, Quercus-oak, Rumex-dock, Salix-willow

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FURNESS PREHISTORY, A SURVEY

by F. Barnes, F.S.A., and R. Smith

We set out with the intention of drawing up a series of distribution maps showing the find spots of various prehistoric discoveries in Furness and Cartmel; one for stone axes, polished and unpolished, one for quernstones and perforated stone axe hammers, one for burial urns and other pots, another for bronzes and so on. It soon became obvious that to show significant detail the maps would need to be large scale, and further that the hoped for distribution patterns were illusory; i.e. one expects to see accumulations of finds around habitation sites, trade routes and so on; instead we found a haphazard scattering, sparse where little soil disturbance had taken place, more concentrated where construction and building had been undertaken in modern times (when finds tend to be recognised and kept) and really intense where proper archaeological research had taken place. For instance when R. Swainson Cowper compiled his Archaeological Survey of Lancashire North-of-the-Sands in 1892 (Archaeologia v.53, p.521) not a single find is recorded on Walney Island, yet now it is on the map of Walney that find spots cluster most thickly - not necessarily because it was heavily populated in prehistoric times but simply because the building of Vickerstown turned up several stone implements which were collected and published by members of the Field Club (particularly Harper Gaythorpe) and latterly the various flint chipping sites have been intensely examined over several years. It follows that only when the degree of search has been constant over a given area does the plotting of find spots become significant. The nearest we can come to this criterion would be distribution maps of prehistoric finds within the borough boundaries of Barrow. For the rest a map of Furness and Cartmel showing the locations of habitation sites, barrows, urnfields and hoards of stone and bronze implements might prove worthwhile since it is probable that not many additions to these categories remain to be discovered.

Three maps have therefore been prepared, two covering Barrow and its immediate vicinity and one general map of Furness as a whole. A few places sometimes recognised as archaeological sites have been omitted as there is no proof that they are not natural features, e.g. Ellabarrow and Mountbarrow; it is also probable that some individual finds have also escaped our net.

The finds and sites plotted are (numbers by the side of symbols indicate multiple finds on the one spot):-

FIGURE 1

Flint Chipping Sites:

Roanhead

Sandscale

GEOLOGICAL SURVEY OF GREAT BRITAIN
England and Wales

W. G. C. ROSE and
K. C. DUNHAM

Geology and hematite deposits of South Cumbria

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Economic memoir for 1:50 000 geological
sheet 58, and southern part of sheet 48

INSTITUTE OF GEOLOGICAL SCIENCES
Natural Environment Research Council

LONDON HER MAJESTY'S STATIONERY OFFICE 1977

CHAPTER 8

Quaternary deposits

INTRODUCTION

The whole of the area shows abundant evidence of intensive glaciation. Over much of the ground glacial deposits of varying thickness—chiefly boulder clay, for which the local term 'pinell' is often used—obscure the solid while in the relatively small drift-free areas glacial striae and roches moutonnées evidence the effectiveness of glacial erosion. The glacial deposits have been described by several workers notably Mackintosh (1869, 1871), Kendall (1900), Grace and Smith (1922) and Gresswell (1962), and a recent re-examination of the Barrow area has been carried out by Grieve and Hammersley (1971). Much of the evidence bearing on the direction of ice-movement and on the detailed sequence is generally agreed in these publications, and is briefly summarised below.

East and north of a line drawn south from Ireleth to the vicinity of Furness Abbey and then approximately east through Leece to Newbiggin on Morecambe Bay the glacial deposits consist almost entirely of a greyish brown or yellow boulder clay, very variable in thickness, that has been termed the Low Furness Till (Grieve and Hammersley, 1971). Its erratic content shows that it was derived from the fell country around Coniston to the north. The direction of ice-movement appears to have been almost due south around Ulverston and to have swung to the south-south-west towards Gleaston. This is deduced from striae, roches moutonnées and the crest alignments of a drumlin swarm occupying much of the lower ground south of Dalton. There are some large tracts of drift-free ground between Dalton and the shores of Morecambe Bay, and others on the Lower Palaeozoic outcrops in the north, particularly in Cartmel where deposition is largely confined to the N-S valley running through Cartmel.

West and south of the line mentioned the glacial deposits are thicker and, in places, more complex in lithology. This area lies within the influence of the Irish Sea glacier that brought with it erratic material derived mainly from West Cumbria—Eskdale Granite erratics being prominent—and also from south Scotland. An admixture of these erratics and those characteristic of the South Cumbrian ice marks the confluence of the major ice-streams. It becomes noticeable around Hodbarrow, extends as far north as Askam, and continues through the south-western end of the Furness peninsula around Barrow. Boreholes have proved that the glacial deposits attain a thickness of nearly 90m in places in the Millom-Hodbarrow area, and nearly 60m along the Duddon shore near Roanhead. The deposits include thick beds of sand and gravel that locally divide the boulder clay into a lower and upper member. The upper boulder clay is generally the sandier and more incoherent of the two and contains a high proportion of Irish Sea erratics. Even so the two boulder clays cannot be separately identified where sand is absent, as it is south-east of Sandscale Farm and

beneath much of Walney Island. Nevertheless a tripartite drift sequence was described in this area by Mackintosh (1869), and has been demonstrated in individual sections by most subsequent workers. It has been generally interpreted as indicating two distinct ice-advances represented by the lower and upper boulder clays, separated by an ice-free period when outwash sands and gravels—the 'middle sands'—were laid down. For the most part, however, the sands in the individual surface sections and in boreholes are not laterally persistent and it is by no means certain that they represent a single depositional episode. In a general way the more substantial beds lie within rock-head depressions.

The most extensive surface outcrop of sand lies between Roose and Rampside and clearly represents material that has debouched from a complex glacial drainage system that funnels southwards into the Furness Abbey channel and lies near the western limit of the Low Furness Till. The sand is capped by small patches of thin boulder clay. Nevertheless the surface topography developed on it, and the freshness both of the feeding channel and of an earlier distributary running through Moss Side make it unlikely that any major ice-advance has covered the area since the sands were deposited. It seems more probable that, as suggested by Gresswell (1962), this particular sand body represents outwash laid down between the two major confluent ice-sheets and does not equate with the sands present at depth around the Duddon.

None of the surface exposures shows any positive evidence of multiple glaciation; in particular there is no record of more than one lodgement till in any one section. The freshness of the surface topography almost certainly dates the bulk of the deposits as late-Devensian (Weichselian). Nevertheless it is possible that the products of earlier glaciations are present locally at depth. This is most likely in the thicker sequences recorded on either shore of the Duddon Estuary and on Walney Island. The relationship of these thicker sequences to the exposed drifts is, however, not clear.

Much of the difficulty in precise dating of the sequence results from the paucity of organic horizons. One unconfirmed record of peat beneath boulder clay is from a borehole [18197045] at North Scale, Walney, but no samples have been preserved. Another record comes from a series of shafts sunk near Lindal-in-Furness, where a peaty deposit containing insects, leaves and diatoms, and overlain by up to 30m of boulder clay was described by Bolton (1862), and Hodgson (1863), though the latter doubted whether the material was interglacial and believed it to be the recent infilling of a subterranean drainage course. The most convincing description of an organic deposit is that by Kendall (1881), who described an area of 'at least 34 acres' to the south-west of Lindal, within which numerous boreholes have proved a peaty deposit, up to 7m thick, which is

overlain by up to 30m of boulder clay and underlain by up to 7m of boulder clay, sand and clay. It seems likely that the deposit is the infilling of a pond within a solution hollow in the surface of the underlying limestone, and that earlier glacial deposits are also preserved in this hollow. Unfortunately a recent Institute borehole failed to prove organic material and is presumed to have penetrated a pinnacle within the solution hollow. In general, however, the spread of Flandrian marine alluvium masks the underlying Quaternary deposits over the lowest ground.

When the ice-cover melted from the district, sea level was appreciably lower than it is to-day, and gradually rose as the melt spread northwards (Tooley, 1974). Evidence of this period of low sea level was obtained when Barrow harbour was excavated during the 1870s. W. B. Kendall (1900) recorded the section in the channel wall near the entrance gates of the harbour: it showed a stream channel, about 100m wide and lined with up to 3m of peat, the lowest exposed level of which lay at -33m OD . The peat rests on river gravels and freshwater clays, the valley being cut in glacial sands overlying a lower boulder clay. The peat is overlain by black silty clay with marine shells, indicating a subsequent rise of sea level from at least -33m OD .

This rise of sea level was responsible for an extensive spread of marine alluvium, with local beaches, that now covers the glacial deposits over much of the lowest ground. Blown sand is also locally extensive. The details of the various stages of this complex and intermittent inundation are beyond the scope of the present study. WCCR, KCD

DETAILS: GLACIAL DEPOSITS

Millom-Hodbarrow

Glacial deposits cover most of the area, and are overlain on the lower ground by marine alluvium and blown sand. Rockhead contours are shown in Fig. 35. These show that the limited Carboniferous outcrops at Hodbarrow Point and near Red Hills are culminations at about $+15\text{m}$ ($+50\text{ft}$) OD of a broad swell in the rockhead. A similar, but much lower swell, lies around Steel Green with culminations at about -30m (-100ft) OD. A wide N-S channel, apparently ungraded and falling to at least -66m (-218ft) OD, separates these two areas. A deeper channel dropping to at least -83m (-272ft) OD runs NNW-SSE through Haverigg; and other smaller channels cut across the two areas of relatively high rockheads, making it uncertain whether these latter represent cut platforms of any real significance. North of the main cluster of boreholes there are two records of particularly thick drift [17577950; 16757944]. These holes may lie along the centre-line of two distinct N-S channels: alternatively it is possible that both lie in a W-E channel that carried sub-marginal drainage beneath Millom. The apparently ungraded profiles of most of the channels and the steepness of their walls makes it probable that they were cut by sub-glacial meltwaters.

At surface the glacial deposits consist mainly of a reddish brown boulder clay containing erratics derived chiefly from the Borrowdale Volcanic Group and the Eskdale Granite, a suite suggesting an admixture of ice from the Duddon valley with the main flow of Irish Sea ice. A few small patches of sand and gravel are exposed, and are both overlain and underlain by boulder clay. A section at Red Hills Quarry, recorded in 1938, reads: red sandy boulder clay 1m; medium-coarse, pale brown sand with thin seams of gravel 3m; stiff purplish brown boulder clay 1m+ (base not seen). A

similar section in the railway-cutting [163798] west of Millom shows about 4m of sand and gravel beneath some 3m of sandy boulder clay.

The many boreholes establish the presence at depth of a thick complex of sands and gravels and boulder clays in those areas where the drift is thickest and the presence of thick beds of water-logged sand above parts of Hodbarrow Mine led to inrushes of water during mining (Harris, 1970; Smith, 1919). Nevertheless even in this small well-drilled area, it is not possible to correlate individual beds of sand and till with any certainty, nor to establish how this sequence is related to the thinner one present over the areas of high rockhead. At the Haverigg Haws Borehole the sequence is even more complicated, and includes four beds of sand and gravel with intervening boulder clays in a total glacial thickness of some 51m. The age of this complex is similarly uncertain. It may all represent the products of the late-Devensian glaciation, or its lower part may have been deposited during an earlier glaciation. WCCR

Dunnerholme-Sandscale

The rockhead contours in this area are shown in Fig. 36 and Fig. 37. Broadly the deposits thicken towards the coast. At Sandscale over 60m have been recorded in one borehole, while between Askam and Dunnerholme the thickness varies from 15 to 55m, the higher figures being recorded near the Duddon shore. On this lower ground, blown sand and marine alluvium cover the glacial deposits, Dunnerholme standing up like an island through the resultant flat. Rockhead is above Ordnance Datum from near Askam to Thwaite Flat, and both here and at Roanhead Crag there are small drift-free outcrops.

The surface glacial deposits are mainly boulder clays, although laminated clay—possibly formed in a glacial lake—has been recorded near Tippin's Bridge [225793] (Grieve and Hammersley, 1971). North of Askam the boulder clay is brown or greyish brown, and its contained erratics consist almost exclusively of Silurian greywackes and tuffs and lavas from the Borrowdale Volcanic Group, all derived from ice moving down the Duddon Estuary. South of Askam Carboniferous limestones and scattered Eskdale Granite boulders are added to the suite. In the extreme south between Sandscale and Thwaite Flat the colour of the till changes to reddish brown over the Triassic outcrops and St Bees Sandstone becomes a conspicuous erratic. Only small patches of sand and gravel are exposed. In the walls of the subsidences over Rita and Park Sops [207752; 215755] up to 4m of sand and gravel are overlain and underlain by boulder clay, and have been referred by Grieve and Hammersley to the 'Middle Sands'. The deposit seems to extend at surface towards Greenscoe [220764].

At depth knowledge of the sequence is dependent on borehole records and some broad conclusions can be drawn from their results. Northwards from Roanhead Crag the deposits consist almost entirely of boulder clay, except for thin included beds of sand and gravel that occur at various depths beneath a belt extending south-east from the coast through Askam to the line of the Furness railway and are apparently associated with a rockhead depression. Around Roanhead and westwards and southwards as far as Sandscale Farm a thick complex of boulder clays, sands and gravels extends downwards to some 30 or 40m below OD. The highest member of this complex is normally a boulder clay and where examined is brown and sandy with erratics from the Borrowdale Volcanic Group and the Ennerdale Granophyre together with Silurian greywackes and St Bees Sandstone. Thick beds of sand and gravel recorded near the coast at the north-eastern extremity of Sandscale Haws may predate the late Devensian glaciation. They are overlain by 20 to 30m of boulder clay, and some of the holes prove an underlying boulder clay.

Figure 35
Rockhead
contours in the
Millom–
Hodbarrow area
(Scale 1:25 000)

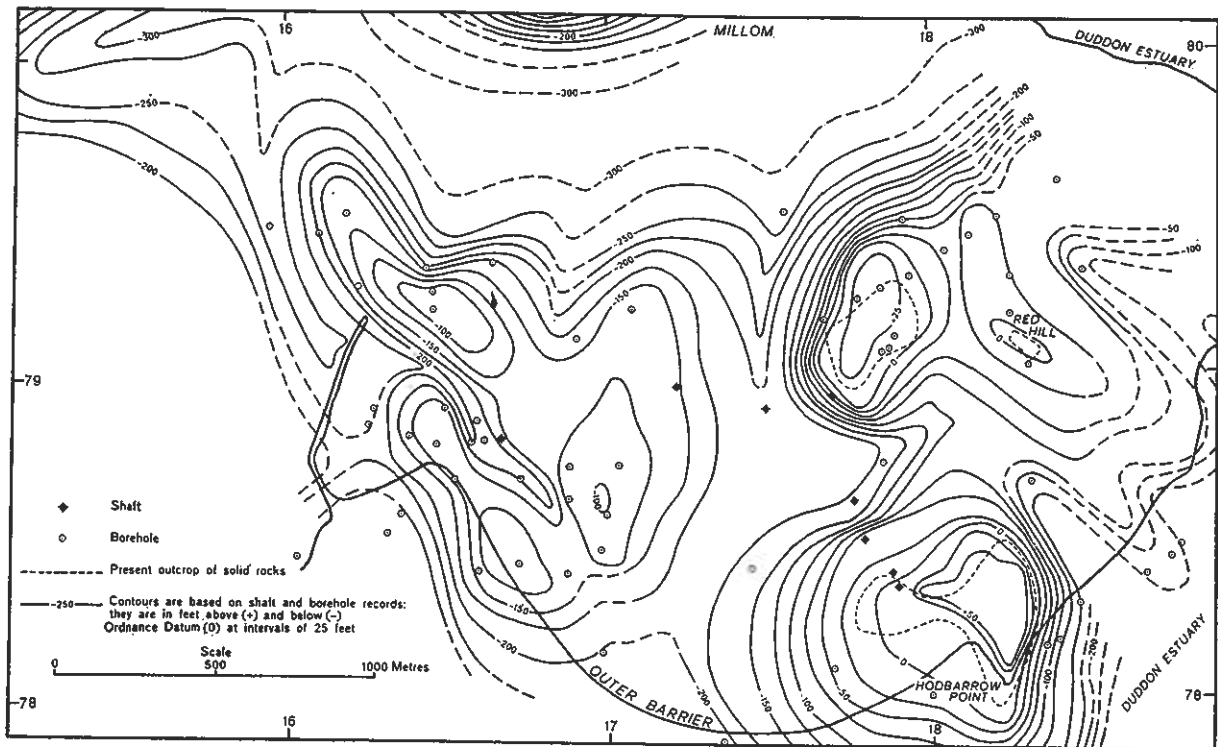


Figure 36
Rockhead
contours around
Askam and
Dunnerholme
(Scale 1:25 000)

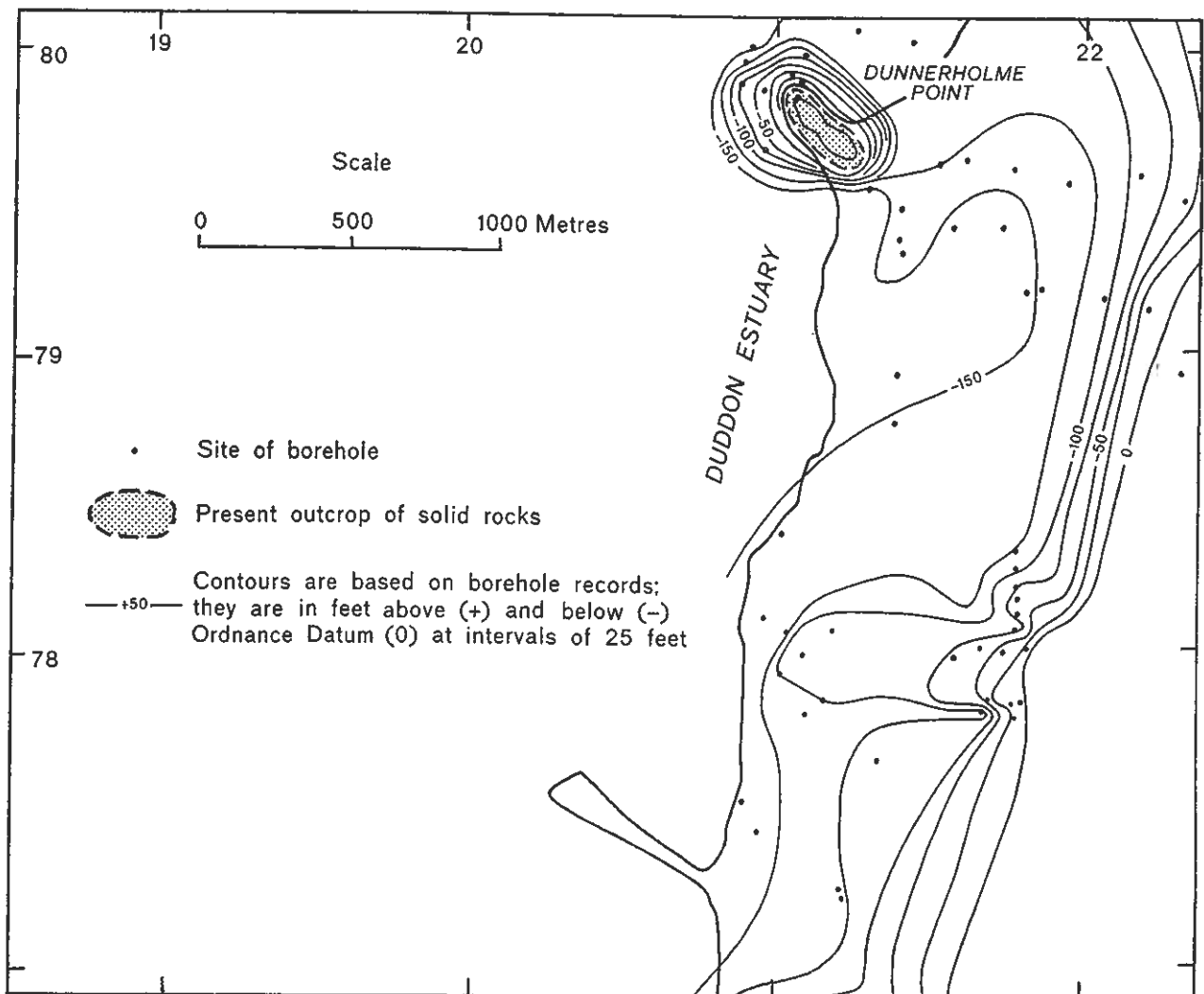
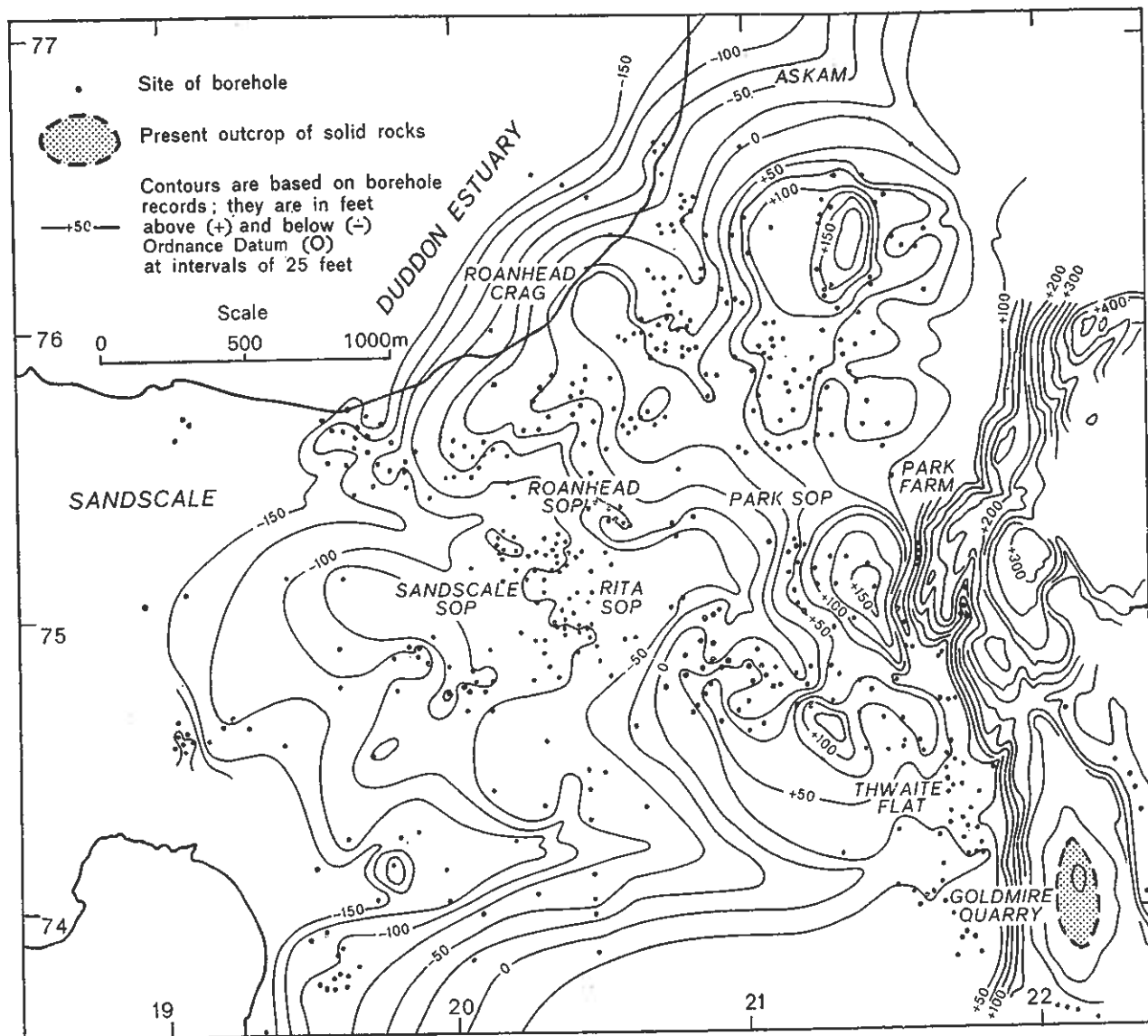


Figure 37
Rockhead
contours in the
Sandscale-
Roanhead-
Park area
(Scale 1:25 000)



Many of the logs note a concentration of large boulders at the base of the glacial sequence. Towards Sowerby Wood the sands fail as rockhead rises and an indivisible mass of boulder clay results.

A prominent glacial drainage channel extends southwards from Askam to Goldmire, and continues beyond it through the Vale of Nightshade to Roose (Plate 8.2). It is cut deeply into solid rock over much of its course, and because it is not filled with glacial deposits and is topographically so fresh is taken to be a product of the latest glaciation.

KCD

Walney Island-Barrow-Gleaston

With the exception of small areas between Newton [230715] and Old Holbeck [234696], around Hawcoat and Furness Abbey, and near Gleaston, glacial deposits are ubiquitous though covered by Recent deposits on the lower ground. Drift thicknesses in selected boreholes appear in Appendix 1.

Permanent sections in the boulder clay are rare, though formerly glacial clays were worked for bricks and tiles in small pits in the Ormsgill and Hindpool areas of Barrow.

Cliff sections at Hare Hill [204630], at Beacon Hill [230663], and in the sand-pits [225688] at Roosecote all expose sands, both overlain and underlain by boulder clay; they have been described recently by Grieve and Hammersley (1971). The Hare Hill section

showed about 1 m of reddish brown gravelly boulder clay overlying up to 6 m of sand preserved within a steep-sided channel cut into a lower boulder clay. The section at Beacon Hill shows up to 3 m of upper boulder clay resting on some 8 m of sand, with a lower boulder clay beneath characterised by a thin limonitic and manganese-rich layer at its top.

The large outcrop of sand and gravel which occupies much of the surface between Roosecote, Rampside and Roosebeck probably correlates with that seen at Beacon Hill; it is well exposed in workings of the Roosecote sand-pits [224688] where it reaches 25 m in thickness and where a thin overlying boulder clay is locally present (Plate 8.1). In the Roosecote Borehole [23046866] the proved section reads: sand 8 m; boulder clay 5.5 m; sand with layers of gravel 7.1 m; boulder clay 15.2 m; on solid. The obvious relationship of this extensive spread of sand and gravel to the Askam-Goldmire-Furness Abbey-Roose glacial drainage channel has already been mentioned.

Several small outcrops of sand, probably overlain by a thin boulder clay, occur along the Walney shore of the Walney Channel, and shallow boreholes [179692] near Vickerstown proved about 7 m of boulder clay overlying at least 8 m of sand and gravel. For the most part, however, the Walney drift is dominantly boulder clay. Walney No. 5 (17SE/2) at Lenny Hill, North Scale, recorded about 20 m of boulder clay overlying 13 m of stony sand itself underlain by 5.5 m of boulder clay. Even less sand is recorded

122 CHAPTER 8 QUATERNARY ROCKS

at Walney No. 6 Borehole (17SE/57) where out of 50.3 m of glacial drift all is sandy 'pinell', apart from two bands of sand and gravel, respectively 1.2 and 1.5 m thick. In Walney No. 4 Borehole (p. 124) 5.2 m of loamy sand separate 30 m of boulder clay above from 20.1 m of a lower boulder clay, but nearby holes show the sand to be impersistent.

Temporary trenches and excavations in 1970–72 for a sewage scheme between Stainton, Gleaston and Newbiggin showed the Low Furness Till, here overlying Carboniferous rocks, to be dark grey when fresh, weathering to yellowish brown; it contained frequent blocks and boulders of Carboniferous limestones which were angular, in contrast to other erratics which were smaller and usually rounded. Over the Permo-Triassic outcrop south-west of Gleaston the colour of the boulder clay changes to reddish brown. An excavation [264690] near Newbiggin exposed about 10 m of reddish brown plastic clay with silty patches and only rare stones; this passed up into reddish brown boulder clay. Drumlins are common between Dalton, Gleaston and Rampsdale, where much of the surface is occupied by boulder clay. The general alignment of the long axes of the drumlins varies between NNE–SSW and NNW–SSE though, as Grieve and Hammersley have shown, there are notable exceptions to this.

KCD, WCCR

Dalton–Aldingham–Ulverston

Boulder clay covers much of the ground between Dalton and Ulverston, and between Stainton and Aldingham. It generally ranges between 5 and 10 m in thickness inland, increasing to about 20 m in the cliffs between Sea Mill [270695] and Aldingham. At one point [281705] on the coast a thin sandy boulder clay overlies a bed of sand 2 m thick, with a stiff grey boulder clay below. The erratics in the latter include large boulders of Urswick Limestone together with smaller stones from the Gleaston Formation, the Borrowdale Volcanic Group, and the Silurian.

In the cliff at Wadhead Scar [308745] near Bardsea, the following section has been recorded:

	Thickness
Clay; brown and loamy with stones and boulders of	m
Borrowdale Volcanic rocks and Silurian greywackes	1
Gravel; coarse and fine	2
Sand; yellowish brown, coarse and fine, well bedded, becoming loamy at the top with seams of red clay	8

A small deposit of sand and gravel is exposed on both sides of the valley of Poaka Beck, about 1 km N of Dalton, and can be seen in old pits. It is up to 6 m thick and is overlain by yellowish brown boulder clay. Irregular patches of sand and gravel, loamy in parts, occupy areas around Kilner Park, Three Bridges and Stone Cross, on the western outskirts of Ulverston. Exposures in old pits near Three Bridges showed, at the time of the resurvey, that the deposit there was up to 6 m thick, that it was underlain by boulder clay, and that an overlying sandy boulder clay, up to 2 m thick, was also present.

Boulder clay covers most of the ground between Urswick and Ulverston and probably reaches a maximum thickness of about 5 m. Boreholes in the alluvial tract east of Ulverston proved up to 16 m of boulder clay resting on solid.

A terrace-like deposit of earthy gravel with boulders, rising about 1 m above the alluvium on both sides of the stream (Gleaston Beck) draining southwards from Urswick Tarn, is believed to be of fluvioglacial origin.

KCD, WCCR

Cartmel

Glacial deposits in this area are mainly confined to the low ground of the wide valley extending northwards from Cartmel towards Windermere, and to the coastal region south-west of Cark and Flookburgh. In the Cartmel valley boulder clay, mostly giving rise

to well-defined drumlins, occupies much of the surface. It is usually a greyish brown sandy clay, and the erratics in it are almost entirely Silurian greywackes with only scattered stones from the Borrowdale Volcanic Group. Its thickness may reach 15 m under some of the higher drumlins but is usually much less. The alignment of the drumlins is N–S in the ground north of Cartmel, swinging to NNE–SSW between Cartmel and Cark. No bedded sand and gravel has been recorded, although some small mounds of gravelly morainic drift occur at Cark [367764] and near Holker [365770].

Two boreholes at Sandgate Marsh [353760], west of Cark, proved about 18 m of glacial deposits described as mainly 'stony clay and gravel'. A small cliff section at Lenibrick Point [349752], 1 km to the south, shows about 6 m of stiff red boulder clay with erratics of Silurian greywackes, Borrowdale volcanic rocks, Carboniferous limestones and reddish purple sandstones probably of Namurian age. Another borehole on Winder Moor [575752] recorded 20 m of stony clay with thin gravel beds beneath marine alluvium.

WCCR

DETAILS: RECENT DEPOSITS

The post-Glacial deposits comprise marine and fluvial alluvium, beach deposits, blown sand and peat.

Marine alluvium (warp) occupies extensive areas of the low coastal strip on both sides of the Duddon Estuary, and around Barrow, Walney Island, and the shore of Morecambe Bay between Rampsdale and Newbiggin. In most of these localities it consists of a grey or pale greyish brown clay, which may be silty in parts and which is commonly peaty at the surface. Elsewhere in the area large spreads of marine alluvium are found east and north-east of Ulverston, on the Cartmel side of the Leven Estuary between Roudsea Wood and Holker, and south and south-east of Flookburgh. Between Ulverston and Greenodd, and around Flookburgh the deposit is more commonly a pale greyish brown silt, while north of Holker it is a stiff grey clay, very peaty at the surface, and enclosing areas of peat (see below).

The height of most of the larger tracts of marine alluvium varies from about 5.5 to 6.7 m OD, distinctly higher than the high-water mark of ordinary tides today (about 4.3 m OD). In places it is separated from the present day marine alluvium by a minor step of up to 1 m. In other places, however, there is no such dividing line; for instance, the large tract south-east of Flookburgh varies from about 6.7 m OD on its inland side to about 4.9 m OD as the shore is approached. Near Biggar and around South End, Walney Island, an intermediate level of marine alluvium at 4.6 to 5.2 m OD can be recognised. For the purposes of the map all marine alluvium above about 4.5 m OD has been termed Older Marine Alluvium; it is regarded as marking a slightly higher sea level than the contemporary one.

The beach deposits of sand and shingle at Sandscale and Walney Island, and those along the shore of Morecambe Bay between Rampsdale and Newbiggin vary in height from about 6.7 to 7.9 m OD: some are clearly related to the sea level denoted by the Older Marine Alluvium; others are covered by blown sand, but probably formed before sea level reached its maximum. The name Older Beach has been used for these, rather than Raised Beach with its connotation of uplift. Smaller occurrences and traces of Older Beach Deposits have been noted at Haverigg and east of Red Hills, east of Ulverston, and south of Flookburgh. The deposits of Walney Island, especially those at North End and South End, and those of Sandscale are much obscured by blown sand and are probably more extensive at depth than is shown on the map.

Both the Older Beach Deposits and the contemporary storm beaches have been worked extensively for gravel, particularly at

South End Haws [224620]. It has been estimated that between 1895 and 1905 well over a million tons of gravel was removed from this area (Smith, 1907). The influence of these workings on coastal accretion and erosion has been discussed in a recent paper (Phillips and Rollinson, 1971) and the raised warps and beaches of the Barrow area have been the subject of a study by Grieve and Hammersley (1971).

The only extensive deposit of peat in the area is at Deanholme Moss [345805], east of High Frith, on the Cartmel side of the Leven Estuary. The peat is mostly brown and has been proved to be at least 3 m thick in parts, resting on Older Marine Alluvium. It has been worked sporadically between Holker and Roudsea Wood.

Blown sand covers considerable areas on Walney Island, especially at the North and South ends, and at Sandscale, where some of the dunes reach to over 15 m OD; smaller dunes are present along the Duddon shore between Askam and Dunnerholme.

The fluvial alluvium of the few small streams in Furness consists mainly of earthy and bouldery gravel in the upper reaches, grading down into silty clay on the lower ground where it merges into Older Marine Alluvium; the dividing line between the two deposits shown on the map is mostly an arbitrary one.

KCD, WCCR

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Included in 1:50,000 Geological Sheet 58 (Barrow in Furness)

LANCASHIRE

F U R N E S S

160

240 Chains

22

23

24

LONG

3° 09' W

525000

LAT

54° 01' N

2 Miles

INDEX AND EXPLANATION

DRIFT

	Peat
	River Alluvium
	Present Beach and Tidal Flat
	Marine Alluvium
	Older Marine Alluvium
	Older Storm Beach
	Glacial Sand and Gravel
	Boulder Clay

SOLID

KrM	Kirkham Mudstones
SnM	Singleton Mudstones
HaM	Hambleton Mudstones
SBS	St Bees Sandstone
SBSH	St Bees Shales
MgL	Magnesian Limestone
GB	Grey Beds
RoM	Roosecote Mudstones

See also Generalized Vertical Section

	Inclined strata, dip in degrees
	Buried valley
	Geological boundary, Drift
	Geological boundary, Solid
	Fault at surface (white on colour copies); crossmark indicates downthrow side

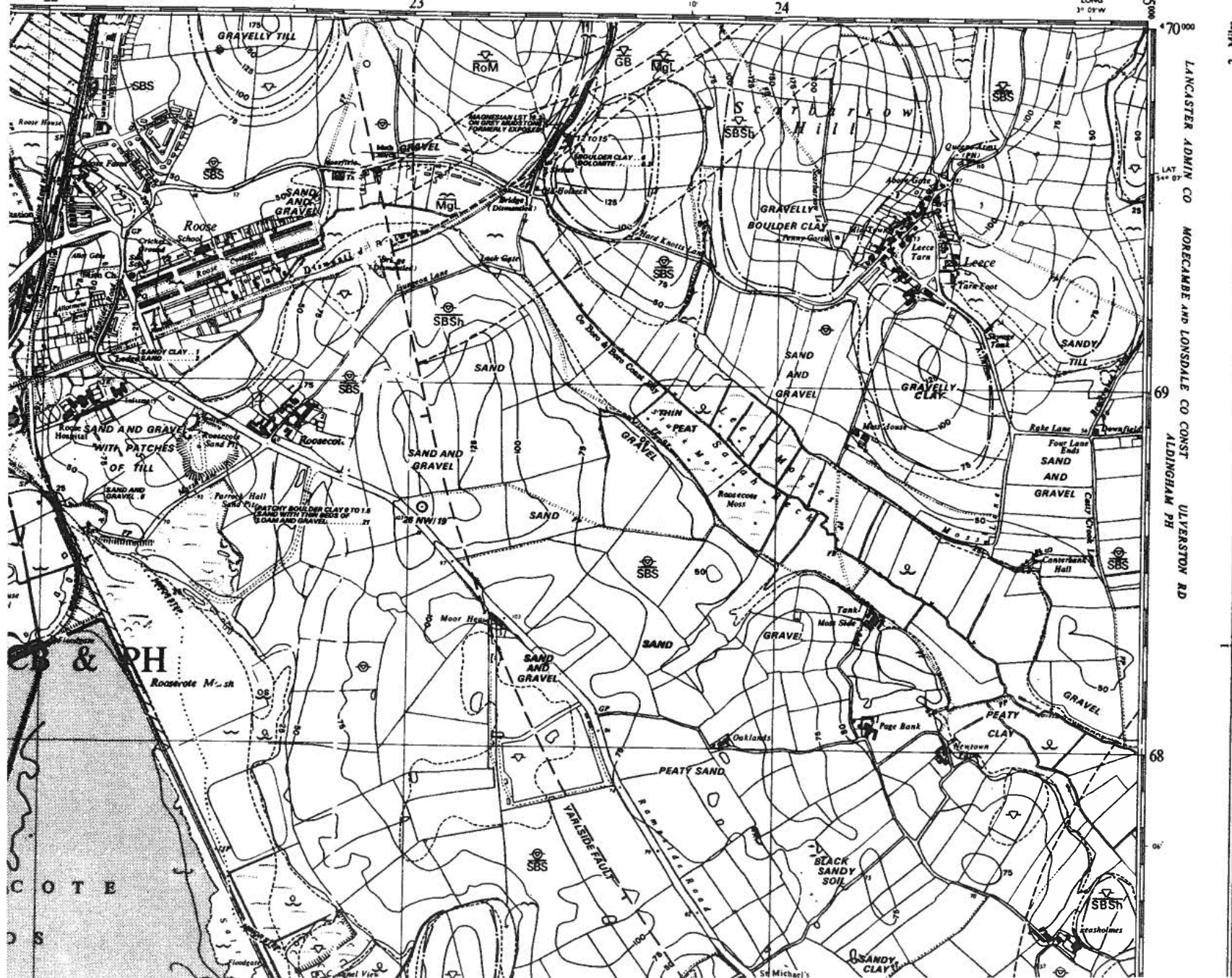
RECENT

PLEISTOCENE

TRIASSIC

PERMIAN

CARBONIFEROUS



Site allocations proposed by Cumbria County Council as part of the Minerals and Waste Development Framework

The Reason for the Decision	As part of the Minerals and Waste Development Framework, Cumbria County Council has formally published their site allocation proposals for consultation. Allerdale Borough Council has been invited to make comment on these proposals.
Summary of options considered	The site allocations proposals identify the sites and areas required to implement the Minerals and Waste Development Framework. These include sites within the Allerdale Borough for waste management facilities and areas for safeguarding minerals.
Recommendations	That the comments highlighted in the report be approved as the formal response by Allerdale Borough Council to Cumbria County Council.
Financial/Resource Implications	Allerdale BC may be invited to discuss our comments at the Examination in Public (EIP). Attendance at the EIP will obviously incur the Council costs in terms of travel expenses and staff time.
Legal Implications	In the event that Allerdale BC is requested to attend the Examination in Public (EIP), the Council will be required to defend any submitted comments.
Community Safety Implications	None
Health and Safety and Risk Management Implications	None
Equality Duty considered/Impact Assessment completed	The site allocation proposals have been the subject of a Sustainability Appraisal. This is an integral part of the preparation of any development plan documents and assesses any potential social, environmental and economic effects.
Wards Affected	All wards lying outside of the Lake District National Park (also including the areas of those wards bisected by the Park boundary)

The contribution this decision would make to the Council's Strategic Objectives	This decision would support strategic objectives 1, 5 and 6
---	---

Is this a Key Decision

No

Portfolio Holder

Cllr Mark Fryer

Lead Officer

Julie Ward - Principal Planning Officer
 Telephone: 01900 702767
 Email: julie.ward@allerdale.gov.uk

Report Implications (Please delete where applicable)

Community Safety	N	Employment (external to the Council)	N
Financial	Y	Employment (internal)	N
Legal	Y	Partnership	N
Social Inclusion	N	Asset Management	N
Equality Duty	N	Health and Safety	N

Background papers: Proposed site allocations maps (attached)**1.0 Introduction**

Cumbria County Council continues the process of preparing the Minerals and Waste Development Framework (MWDF) for the parts of the County lying outside of the Lake District and Yorkshire Dale National Parks. The MWDF Core Strategy and Development Management Policies were formally adopted in April 2009 and the County has now reached the stage of publishing their proposals for site allocations for mineral extraction and waste disposal. This is the formal consultation stage when stakeholders and third parties can make comments that will inform the forthcoming examination of this Site Allocations Development Plan Document (DPD).

The County has already formally consulted on their site allocation options and Allerdale Borough Council (ABC) submitted their comments in February 2010. These comments were duly considered at the Public Examination. The County Council intended to adopt the Site Allocations Development Plan Document in January 2011. However, due to a successful High Court challenge in connection with a procedural matter relating to a site in Barrow, it is necessary for the reconsultation exercise to be repeated.

The deadline for comments is the 5th December 2011. The County Council will, once all the comments are collated, consider their responses and may suggest amendments before submitting the Site Allocations DPD to the Secretary of State for Examination.

2.0 Proposals for site allocations for mineral extraction and waste disposal

The report shall address each of the proposed site allocations in turn, followed by a recommended response by officers. Previous comments and recommendations from Members have been carried forward. Plans showing the location of each of the sites are included as background papers to this report.

2.1 Sites for Household Waste Recycling Centres (HWRC)

Preferred Sites;

1. Solway Road Workington; (Site Ref; AL17); this was Member's preferred site for a replacement HWRC for Workington and so this allocation is welcome.

Recommended comment; That this allocation be supported as the Council's preferred site for a replacement HWRC for Workington.

2. Auction Mart Cockermouth; (Site Ref; AL29); it is understood that this is a new facility for Cockermouth and will not replace the recycling collection point at Sullart Street. On this basis the allocation can be supported.

Recommended Comment; That this allocation be supported.

3. Risehow Industrial Estate Flimby; (Site Ref; AL35); it is understood that this is put forward only if it is needed to replace the existing one at Glasson, Maryport. On this basis it can be supported; better alternatives would be difficult to find.

Recommended Comment; On the basis that this proposal will only be implemented if a replacement for the Glasson, Maryport Centre is required, this allocation be supported.

Reserve Site;

Joseph Noble Road, Lillyhall; (Site Ref; AL8); this site is shown as having potential for a range of recycling activities (see below) and there is no objection to the principle of having a HWRC here also, though not as an alternative to Solway Road (Site Ref; AL17). A facility here would be accessible to a wide area of southern Allerdale.

Recommended Comment; whilst the principle of a HWRC can be supported here, the Council would not support it as an alternative to Solway Road (AL17) unless that site cannot be delivered.

2.2 Sites for Waste Treatment Facilities

Preferred Sites

1. Port of Workington; (Site Ref; AL18); this is a logical location for such a facility, which is accessible by sea, road and rail.

Recommended Comment; That this allocation be supported.

2. Lillyhall Waste Treatment Centre; (Site Ref; AL8); this area of Lillyhall already has a specialism in waste treatment and so this allocation is logical.

Recommended Comment; That this allocation be supported.

3. Part of former Alcan Complex; (Site Ref; AL34); this is the rear part of the old Alcan complex and is close to the existing Distington Landfill site and so is well

Recommended Comment; That this allocation be supported.

Reserve Site;

Oldside; (Site Ref; AL3); this site has similar advantages to the Port site. (Ref; AL18 above) and so can be supported.

Recommended Comment; That this allocation be supported.

2.3 Sites for “Energy from Waste Plants”

Preferred Sites;

1. Port of Workington; (Site Ref; AL18); as above, this is a very accessible location; however, such facilities can have a very severe blighting effect on neighbouring land uses and could constrain the range of development deliverable nearby.

Recommended Comment; It must be recognised that this kind of facility can have a severe blighting effect on neighbouring land and users, and this would not be our preferred site for such a use.

2. Lillyhall Waste Treatment Centre; (Site Ref; AL8); this kind of facility would fit more easily into the Lillyhall context than many other areas, any blighting effects will be significantly less, and so this could be regarded as the Council’s preferred site for this type of use.

Recommended Comment; This allocation is supported and is Allerdale’s preferred site for this kind of facility.

Reserve Sites;

1. Oldside; (Site Ref; AL3); the same comments apply here as at the Port (see above).
2. Innovia, Wigton; (Site Ref; AL30); it is understood that this is a facility purely for the use of Innovia involving their waste products. This site is liable to flooding and it is also very close to domestic dwellings. It is assumed that the Environment Agency has not objected to this allocation; however, bearing in mind the proximity of dwellings, the Council should only support this allocation if the facility is relatively small scale and for the use of Innovia only.

Recommended Comment; The Council is aware that this site is liable to flooding and would not support such a development here if it were subject to an objection from the Environment Agency. Notwithstanding this, the Council could support this allocation only if it were relatively small scale and for the use of Innovia only.

2.4 Site for Landfill

Preferred Site;

Lillyhall; (Site Ref; AL31); this site is part of the former Alco landfill site and is therefore a logical choice for further landfill capacity, although it must be remembered that landfill now comes low down in the sequential approach to waste disposal. Subject to the proposal not exacerbating the existing odour issues this site can be supported

Recommended Comment; this allocation is supported subject to there being no worsening effect on the existing odour issues

2.5 Sites for Mineral Extraction

Preferred Site for Sand Extraction;

Overby and High House Quarries; an “Area of Search” is designated between these 2 quarries; (Site Ref; M6); this locality has been subject to sand extraction for decades and the impact on local communities has been significantly detrimental, especially the levels of quarry traffic on the inadequate local highway system. It is not clear that these extra reserves will be needed in the Plan Period (to 2020); in fact it is likely they will not be needed, and in such circumstances it would not be appropriate to support this Area of Search.

Recommended Comment; This Area of Search is not supported because it appears to be unlikely that these extra reserves will be needed in the Plan Period to 2020. In these circumstances Allerdale Borough Council considers it inappropriate to identify this Area of Search at this time. Should a proposal emerge that would lead to increased traffic movements we would wish to see highway improvements implemented.

Preferred Site for Secondary Aggregates;

Derwent Howe Slag Bank (Site Ref; M24); this proposed Minerals Safeguarding Area is for secondary aggregates. There are serious concerns in relation to the potential impacts arising from extraction which might result from this safeguarding proposal. If it is a short period, the infrastructure, environmental and amenity issues which would arise with traffic movements would be significant and potentially unacceptable. If it is a longer period, it would restrict the possibility of beneficial post-restoration development, have a severely blighting effect on the redevelopment of the former Corus Steelworks site immediately south of the safeguarded area.

There is a strong possibility of the presence of protected species within the proposed safeguarding area – particularly Natterjack Toads and the Small Blue Butterfly. The area is also identified within the North West and Cheshire Shoreline Management Plan as a ‘no active intervention’ zone, and therefore the continued natural erosion of the coastline.

Recommended Comment; Allerdale has serious concerns about the deliverability of any extraction which might be proposed subsequent to this Safeguarding designation. We cannot support such a designation without further information about timescales and scale of extraction, means of

transportation of the aggregate, biodiversity, and the implications for adjacent development.

2.6 Site for Railhead Safeguarding

Siddick; (Site Ref; AL32); it is understood that the safeguarding of this site north of the Workington WWTW for new rail sidings, is for the potential purpose of transporting minerals, specifically for coal which might be extracted from Derwent Forest. On the original consultation report to the Executive Committee, officers recommended that this safeguarding proposal should not be supported given that (a) it is based upon assumptions which might not be deliverable or appropriate, (b) it does not take into consideration the needs of other potential rail users in this area and (c) there are other optional locations for providing such a facility, particularly in north Workington/Siddick area.

Members did not concur with this recommendation and were minded to support this railhead safeguarding proposal.

Recommended Comment; That this allocation be supported.

3.0 **Customer Focus**

3.1 No direct implications

4.0 **Locality Working**

4.1 No direct implications

5.0 **Finance/Resource Implications**

5.1 Following the submission of the Site Allocations DPD to the Secretary of State for Examination, Allerdale BC may be invited to discuss our comments at the Examination in Public (EIP). Attendance at the EIP will obviously incur the Council costs in terms of travel expenses and staff time.

6.0 **Legal Implications and Risks**

6.1 The need to attend the EIP is not guaranteed, as it is at the discretion of the presiding Inspector. However, in the event that Allerdale BC is requested to attend we must therefore, be prepared to defend the comments we make, in a public forum.

7.0 **Recommendations**

7.1 That the recommendations set out in this report form the basis of the Council's submission to the consultation by Cumbria County Council on the proposals for site allocations for mineral extraction and waste disposal.

8.0 **Conclusion**

8.1 The site allocations proposals identify the sites and areas required to implement the Minerals and Waste Development Framework for the areas of Cumbria lying outside of the Lake District and Yorkshire Dales National Parks. The majority of the preferred and reserve sites proposed within the Allerdale Borough raise no

objections and can be supported. However the inclusion of sites with the Port of Workington and adjacent to Corus could affect the Council's ambitions for the future development/regeneration of those sites. Similarly, there have been concerns in relation to the impacts of traffic movements associated with mineral extraction the Overby quarry and therefore, the continuation of such operations long-term at the site need to be considered carefully.

Jill Elliott
Strategic Manager Business

From: Ward, Julie [Julie.Ward@Allerdale.gov.uk]
Sent: 05 December 2011 20:17
To: ECE - Minerals and Waste Development Framework
Subject: site allocations consultation

Attachments: minerals and waste site allocations report.doc

Please find attached Allerdale's comments regarding the site allocations. The comments are the same as previously submitted, as set out in the recommendations in the attached report with the exception that the Council would wish to see the Solway road site allocated for employment use.

please let me know if you wish to discuss any of our comments

regards

Julie Ward

Allerdale Borough Council
Allerdale House, Workington, Cumbria, CA14 3YJ

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029 - email 111205 Barrow BC

From: Elizabeth Murphy [emurphy@barrowbc.gov.uk]
 Sent: 05 December 2011 17:24
 To: ECE - Minerals and Waste Development Framework
 Cc: Phil Huck; Tiffany Battersby
 Subject: Cumbria MWDF Site Allocation Policies DPD

Attachments: BBC SAP DPD Reg 27-28 Response 5 Dec 2011.pdf

Dear Richard

Please find the officer comments on behalf of Barrow Borough Council attached.

Elizabeth Murphy
 Local Development Framework Officer
 Barrow-in-Furness Borough Council
 Direct Dial (01229) 876360
 Barrow Borough Council - Enhancing the economic and social future of the Borough.

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Contact Name: Elizabeth Murphy
Direct Line: (01229) 876360

Date: 5 December 2011

Dear Richard

Re: Cumbria Minerals and Waste Development Framework. Repeated Regulation 27 Publication of Site Allocations Policies DPD and Proposals Map

I refer to your letter dated 21 October 2011 regarding the above. Please find below Officer comments on behalf of Barrow Borough Council.

General

We note that following the quashing of the Adopted Plan, the County Council have opted to repeat the Regulation 27 Publication stage, and that the Regulation 25 stage is not to be repeated. The Council have no objection to this in principle and consider this to be a sensible way forward.

Although the Council's legal challenge was made solely on the matter of the inclusion of Site M12, the Council was never invited to comment on the content of the previously submitted DPD or the subsequently modified adopted document as it should have been in view of the fact that these documents were markedly different from the previously published Regulation 27 DPD on which the Council's comments had been invited.

Paragraph 1.7 of the current Publication document indicates that the published document may be altered. Any alterations, other than minor post-publication changes (editing) which are proposed to improve the legibility of the Plan or ensure it is up to date, should be republished to allow further representations in accordance with the legislation and established procedures.

It is not clear whether the County Council will be relying solely on the three rounds of Regulation 25 consultation carried out in 2009 or using the previous Publication and Examination stages as additional informal Regulation 25 consultation? There does not appear to have been published the statement described under Regulation

24 and required to be published at the Regulation 27 stage which would have explained this?

Coherence of the overall strategy

The Borough Council is concerned about the overall coherence and effectiveness of the proposed strategy as a whole, and the Site Allocations Policies DPD in particular, and whether or not it effectively identifies the sites required for minerals and waste purposes in the County and the Borough. This has implications for this Borough's LDF. This Council will be identifying and consulting on the locational criteria and quantities of land required for development in its Core Strategy and then identifying sites e.g. for housing and employment, without sufficient certainty as to whether the County Council will be granting planning permission for minerals and waste uses on or near these sites.

Whilst it is acknowledged that there will always be occasional 'windfall' sites that come forward and are approved, the strategy, particularly in respect of energy from waste plants, but also other waste facilities, is not considered to provide the clarity that development plans are meant to provide.

In particular, the Council objects to the text at paragraph 2.3 which effectively seeks to reinterpret Policy 9 of the Core Strategy (which included the estimates of the number of facilities of each type that will be needed for minerals and waste purposes in Cumbria), to state that it is not intended to be used restrictively and that proposals may be able to demonstrate a need for additional facilities. It is not considered appropriate to use the Site Allocations Policies DPD to change the strategic application of the Core Strategy policies – this should be done, if sought, through a review of the Core Strategy. The Site Allocations Policies DPD already identifies more sites than are needed (in line with the Core Strategy policy).

The Council's concerns are illustrated by the discussions which took place when the Plan was previously Examined, in respect of a site at Sandscale Park near Barrow, which was put forward as an energy from waste site by a third party in their previous Regulation 28 representations and at the Hearing (paragraph 57-59 of the Inspector's report). The Inspector decided not to include the site within the DPD stating in paragraph 59 that: "On balance, I agree with the (County) Council that it is not appropriate to recommend the inclusion of this site in the DPD in order for it to be consistent with the CS and thus sound. In reaching this conclusion, I have attached considerable weight to the explanation given by the Council about the way the CS and GDCP policies will be applied and the likelihood that this acknowledged gap in provision can be filled by a planning proposal which accords with the policies of the development plan as a whole."

No 'gap in provision' was apparent then or now. The Core Strategy sought to identify two sites for Energy from Waste incinerators and paragraph 7.26 explained that, at the time it was written, flexibility was needed to accommodate both bids for the municipal waste management contract. However, this was subsequently signed and did not require Energy from Waste plants.

The Site Allocation Policies DPD as previously considered by the Inspector, and the current Publication document, acknowledges this and explains that planning permission for 3 Energy from Waste plants has been granted, one in Barrow, one in Kendal and one in Silloth. It goes on to say that "It is considered that two more sites are likely to be needed." Four 'First Preference' sites are then proposed, none of which are in Barrow. The strategy and justification here is not understood.

Identified Sites:

The current Publication document identifies 4 sites in Barrow: Goldmire Quarry as additional non-inert landfill capacity; High Greenscoe Quarry as an 'Area of Search' for Minerals; Roose Sand Quarry as a 'Preferred Area' for minerals; and Roosecote sand and gravel quarry extension as an 'Area of Search' for minerals.

Goldmire Quarry (BA10)

Barrow Borough Council objects to the inclusion of this site and reiterates its comments made at previous stages of the DPD production on 6 July 2009, 14 October 2009 and at the previous Publication Stage on 26 January 2010. In the absence of technical and feasibility studies, it is considered premature to allocate the site for non-inert landfill. Without such studies, the suitability of the site, its capacity and its deliverability cannot be adequately demonstrated.

The apparent justification for the allocation in terms of alignment with the Core Strategy and evidence of need as set out in the supporting text in paragraph 3.10 appears illogical. Robust and up-to-date data is essential for the justification of proposed sites and clear evidence should be made available to support such proposals.

It is clear from the Inspectors Report of the 1 December 2010, that the Inspector and the County Council shared the Borough Council's concerns about deliverability (para 66), and I am not aware of any evidence that has become available since the Inspector's Report, to demonstrate deliverability.

High Greenscoe Quarry (M5)

No objections.

Roose Sand Quarry (M27)

No objections.

Roosecote Sand and Gravel Quarry Extension (M12)

Barrow Borough Council objects to the inclusion of this site and reiterates its comments first made on the 6 July 2009 that the site is a completely stand alone area of land separated from the existing Roosecote Quarry by Rampside Road. It is noted that the area of the site is reduced from that identified in 2009 and included in the adopted DPD. The area is a prominent area of greenfield land located in an area of valuable open countryside, the development of which for sand and gravel extraction has not been demonstrated to be justified in accordance with policies CSP4, DCP3, DCP6 and DCP12.

Sustainably Appraisal & Appropriate Assessment

The Sustainably Appraisal (SA) for site M12 identifies no adverse environmental/sustainability impacts under its assessment against criteria EN2 and NR4. The Council does not agree with these conclusions and would therefore question the methodology used in the SA. The Commentary/Explanatory/Issues text at the bottom page 88 is cut off. The SA also states that 'This site is within a

Minerals Safeguarding Area'. This is incorrect - are not the MSAs are to be identified by the Site Allocations Policies DPD?

We note that Site M12 is not included in the Habitats Regulations Assessment, which states in paragraph 1.8 "The Assessment does not include land that the Council is proposing should be identified as Areas of Search for extending quarries or as Minerals Safeguarding Areas."

Conclusion

In conclusion and for the above reasons, Barrow Borough Council objects to the Published Cumbria and Minerals and Waste Development Framework Site Allocations Policies DPD and Proposals Map and considers it unsound. The Council would further urge the County Council to satisfy itself that its processes will ultimately lead to a legally compliant Plan.

Yours sincerely

Phil Huck
Director of Regeneration & Community Services