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Lancashire Minerals and Waste Local Plan Inquiry

Round Table Session

3	Waste strategy and the Waste Management Plan	para. 1.11, p3; para. 12.19-12.39, p105-116
40	PC 92 - Waste Arisings in Lancashire	

For an on behalf of
ARROW

Objector no. 5159

Session 2: Round Table Discussion on Waste in Lancashire

This statement has been produced on behalf of ARROW (Action to Reuse and Recycle Our Waste) and considers the ARROW objections on the waste chapter in the context of the issues identified by the Inspector.

Are the Figures for Waste Arisings and Disposal Realistic?

It is our opinion that the reports produced by Lancashire County Council in the past suffered from a severe lack of hard data. Even in the draft waste disposal planⁱ, and the Minerals and Waste Local Plan (MWLP) itself, there is very little 'reliable' data on waste arisings and disposal.

The Environment Agency, as part of the process of surveying waste disposal capacity in the UK to establish a baseline for the National Waste Strategy, have now produced more detailed information on waste in Lancashire. This new data has however shown the assumptions of the Lancashire Structure Plan, and the draft MWLP, to be entirely incorrect. Should the policies of the plan be carried forward there would be an over-provision of landfill capacity in the wrong areas of the County.

The method Lancashire County Council have used to calculate landfill need and available capacity has been fair. Only sites that have a realistic chance of being developed – that is sites which have planning permission for the disposal of waste – have been included. The decision to apply varying densities to different waste streams also enables a more realistic appraisal of available capacity to be made.

The only dispute we have regarding the calculation of landfill capacity in the County Council's statement of caseⁱⁱ is that they have considered the entire county as one unit. We believe that the county should have been divided into sub-areas, and an assessment made for each area. We believe that such an approach is more realistic as it enables policy to be made for the needs of each area, having regard to the proximity principle. We have reassessed the figures in the Council's statement for biodegradable wastes, and the results of this are presented in appendix 1.

The results our analysis suggest:

- Even on the 'do nothing' approach, there is sufficient capacity for landfill in Lancashire until the end of the plan period;
- The two areas that need increased disposal capacity are the middle of Lancashire and the eastern districts;
- Assuming that there is a modest decline of 5-10% percent in waste arisings, the southern districts of Lancashire will not need new capacity until after the plan period;
- The northern area of the County has the highest provision of landfill, and should not need new disposal facilities until well into the next plan period;
- If the '*Making Waste Work*' target of reducing landfill by 40% were met by 2005/6, then no new disposal capacity would be required until mid-2006 in the east of the County;
- These projections consider only a linear reduction in waste going to landfill – in reality the effect of more recycling is to 'cherry pick' the best waste at the beginning of the change in strategy (from disposal to recycling). This means that more waste may actually be diverted away from landfill over the period 2000-2006 than is allowed for in these projections.

ⁱ The section 50 waste disposal plan was produced in draft, but was not approved by Lancashire County Council before the setting up of the Environment Agency in April 1996.

ⁱⁱ "*Statement Regarding Provision for Landfilling*" (corrected), Lancashire County Council, January 1998

In terms of ARROW's main objection, we believe that the new data on waste capacity and demand in Lancashire demonstrate that Round O Quarry would not be a suitable site for a landfill. This is because there is sufficient capacity for most of the plan period, and the actual need for a large increase in capacity is on the eastern area of the County.

Do the Proposals in the Plan Adequately Implement the Lancashire Structure Plan

This question presupposes that the information the County Council had at the time the structure plan was compiled was correct. It also assumes that the waste reduction strategy the County are seeking to implement has been adequately provided for in the structure plan too.

Considering the structure plan waste policies in order:

- Policy 64 is not implemented by the MWLP because it sets a target of reducing waste to landfill by 40% (20% over the whole plan period). Projections in the County's statement on landfill are only considering 25% (12.5% over the whole plan period). There is also the issue of the 'need' identified in the plan, and the issue of regional self-sufficiency.
- Many landfills will be in quite probably breach of Policy 67. It is readily accepted in Waste Management Paper 26B that all landfills seep leachate, even where engineered containment is provided. For this reasons there are many locations across the County where the location of a landfill will pose an unacceptable risk to the environment.
- Policy 68 is not technically feasible, which poses a problem with how the MWLP should deal with the requirement to stabilise within 30 years. There is no system of landfill at the moment that can stabilise a site within 30 years. Guidance from the DoE over the last few years has focussed on accelerating degradation by increasing the moisture content of the site significantly (the '*bioreactor principle*'). If this were to be achieved – and as yet no full scale bioreactor has been built – then it may be considered to be meeting the purposes of Policy 68. However, the development of a 'bioreactor' may be prejudiced by the ban on 'biostabilised' wastes in MWLP Policy 78, which would apply to the wet pulverised wastes fed into a bioreactor, and the quantities of water required to operate a bioreactor are excessive.

Policy 64 is probably the most problematic for the County Council to deal with. Given that the structure plan commits Lancashire to reducing landfill by 40%, it seems odd that such a scenario was not presented in the MWLP, or the County's statement on landfilling.

The need for meeting regional need is also in doubt. The concept of meeting regional need is contrary to the proximity principle. Providing waste capacity for other areas in the region is also a disincentive for those areas to develop waste elimination, minimisation and recovery systems. It can also be considered contrary to the 'polluter pays' principle. There is also no statutory requirement for the County to make any commitment to take waste from outside the area. If the plan were to be required to take waste from other area of the region, then this obligation would have to be accounted for in the demand and provision projections that form the basis of policy. No figures have been advanced by the County on this, and so any requirement to take waste from elsewhere must be considered '*void for uncertainty*' – provision cannot be made within the plan since no case has been advanced to quantify the need.

Finally, although it is not stated within the policies of the structure plan itself, there is through PPG1 and various other guidance a general obligation on plans to encourage sustainable development (this issue has been considered in detail in our objection DEP5159/1/1). There is no detailed statement in the MWLP as to how the policies help achieve this goal.

Is the Proposed 25% Reduction in Landfilling Realistic, and does the Plan Promote and Effective Waste Management Strategy?

This depends upon whether the County Council as Waste Planning Authority and Waste Disposal Authority, and the district councils as Waste Collection Authorities, have a real commitment to changing how waste is managed within Lancashire.

There is too much emphasis both at district and county level on the recycling of household waste. Achieving real cuts in landfilling is going to require an integrated approach to waste elimination, minimisation and recycling. This can be simply demonstrated if we consider the target of recovering 40% of household waste by the year 2006 (structure plan policy 64)...

- 40% of Lancashire's household waste = $0.4 \times 1,686,000 = 674,400$ tonnesⁱ
- $674,400 / 2,947,000 = 22.9\%$ of annual controlled waste disposal in Lancashire

If we merely concentrate on household waste then we will miss the target.

The plan should therefore implement a set of policies which encourage waste elimination, minimisation and reclamation in the widest sense. We have a general concern regarding the balance of the MWLP – in particular there is too little emphasis on the alternative options to landfill and incineration. The position of Government policy is that we must consider waste management options higher up the waste hierarchy. The plan should begin by considering precisely what 'waste' is. 'Waste' is term with precise legal meaning, and for the purposes of the MWLP we must reconcile the policies of the plan with the actual meaning of 'waste' within the EC Framework Directive on Waste.

The Framework Directive has introduced a new meaning of the term 'directive waste'. Schedule 22 of the Environmental Protection Act 1995 repeals section 75(2) of the Environmental Protection Act 1990 that defined the term 'waste', and instead the definition of waste taken in Regulations 1(3), 24(8), and paragraph 9 of Schedule 4 of the Waste Management Licensing Regulationsⁱⁱ now defines what is and is not waste. Paragraph 2.54 of DoE Circular 11/94ⁱⁱⁱ outlines the definition of waste as follows:

"Waste appears to be prescribed in the Directive as posing a threat to human health or the environment which is different from the threat posed by substances or objects which are not waste. The threat arises from the particular propensity of waste to be disposed of or recovered in ways which are potentially harmful to human health or the environment and from the fact that the producers of the substances or objects may no longer have the self interest necessary to ensure the provision of appropriate safeguards."

This concept is completely different to the past definition of controlled waste which assumed that certain objects or substances fitted neatly into definitions of origins (industrial, household, etc.). The Directive approach considers that any object or substances that is discarded, or which is disposed of via recovery operations such as the spreading of waste on land or the use of imported waste to reclaim or re-contour a site, should be handled in a way which meets the '*relevant objectives*'^{iv}. That puts a positive burden of local planning authorities – in particular where any handling, storage or treatment of waste materials does not require a waste license (for example, storage on a premises prior to collection) – to consider and include appropriate safeguards to protect the environment and human health, and foster better resource management.

ⁱ From table 11, County's statement on landfilling.

ⁱⁱ Waste Management Licensing Regulations 1994, SI. 1994/1056.

ⁱⁱⁱ DoE Circular 11/94, "*Waste Management Licensing, The Framework Directive on Waste*", 19th April, 1994.

^{iv} The '*Relevant objectives*' of the Directive are defined in paragraph 4, schedule 4 of the Waste Management Licensing Regulations.

There are four particular ‘problem areas’ which the MWLP must address itself to if it is truly to begin developing a sustainable waste strategy:

- *The storage of waste prior to collection.* This is not just in the sense of industrial or commercial land uses, but also with regard to domestic, agricultural and mineral wastes;
- *The facilities for the collection of waste materials should be controlled to ensure that the relevant objectives are met.* This ‘problem’ is probably the most broadly based since it could be interpreted as anything from the location of domestic dustbins or the maintenance of oil interceptors, through to the collection of bulk materials from manufacturing processes which might give rise to dust, odour or spillage of materials;
- *The use of waste materials as part of development, for example the reclamation or re-grading of a site or as part of the construction process, even where this takes place within the same site.* There must be safeguards on the importation, storage and use of this material, and its composition, to prevent environmental damage;
- *The use of waste materials as part of the operations carried out on site, even where the waste materials arise and are used within the same site.* The most obvious land use here is the reprocessing or recycling of waste materials, but other land uses such as animal feed manufacture, agriculture, and some industrial processes rely on the importation of materials which are the ‘waste’ of another process.

If these operations are not considered within the MWLP then the requirements of the Directive, as far as the obligations on the planning system are concerned, will not be met.

Also, with regard to what strategy should be developed, it is not simply a matter of trying to move up the hierarchy. We must also tackle the issue of ‘*best practicable environmental option*’. For example, the BPEO for sewage sludge, on an objective assessment of energy and pollution balances, is anaerobic digestion. References in paragraph 15.7 to other options can be demonstrated, on a lifecycle analysis, to pose more environmental risks.

If we consider incineration, For most materials the amount of energy produced by burning in incinerators is significantly less than that invested in their manufacture. If we consider plastics...

Energy implications of plastics incineration	
Energy in manufacture ^a , MJ/kg:	120
Energy from combustion ^b , MJ/kg:	44
Efficiency of generation ^c :	0.33
Electricity produced ^d , MJ/kg (b x c):	14.5
Energy efficiency of plastics incineration (d / a):	12%

This means that incineration is the ‘worst environmental option’ when compared to other solutions such as recycling or reuse. In terms of the practicalities of waste combustion as an energy source, if we take a traditional fossil fuel such as coal, coal contains more energy per unit volume than mixed waste. You have to burn three times more mixed waste for the same energy release.

There should be a requirement, in order to meet the environmental requirements of the Framework Directive on Waste, to demonstrate BPEO for waste development, including where possible lifecycle analysis of the materials being processedⁱ.

In terms of being ‘realistic’ about waste minimisation and recycling, the shift from a system based primarily on disposal to one where 40% of waste is recovered will not be achieved without a

ⁱ It is being proposed in the final draft of PPG10 (DETR, February 1998) that lifecycle analysis be part of an assessment system for waste management planning

radical change in attitudes to the management of waste and the value of resources. That means using, where possible, economic measures to promote a shift in policy. This process has already begun with levies such as the landfill tax. However the primary variable in any system of demand management will be the availability of alternatives to final disposal, and the level of final disposal made during the plan. **For this reason it would be far preferable to aim for an under supply of landfill or incineration capacity in a plan, and then to take up this gap through other means.** If we plan for final disposal, and only have waste recovery bolted on as an afterthought – which is our interpretation of the Lancashire MWLP – then the system of waste management will not change.

It is the ‘bolting on’ of recycling which we object to in the MWLP. There is no strategy other than bulk disposal to landfill. Even if we were advocating meeting the 40% reduction through incineration, there are no sites for incinerators committed in the plan. Our primary concern is that there have been no sites identified for the recycling of household, commercial, industrial or construction wastes. The plan should identify – for the purposes of the EC Framework Directive on Wasteⁱ:

- An integrated and adequate network of waste disposal installations, taking account of best available technology not involving excessive cost.
- How waste can be disposed of in one of the nearest appropriate installation, by means of the most appropriate methods and technologies in order to ensure a high level of protection for the environment and public health.
- How planning policies will encourage the prevention and reduction of waste production and its harmfulness, in particular by –
 - the development of clean technologies more sparing in their use of natural resources;
 - the technical development and marketing of products so as to make no contribution or to make the smallest possible contribution, by the nature of their manufacture, use or final disposal, to increasing the amount or harmfulness of waste and pollution hazards; and
 - the development of appropriate techniques for the final disposal of dangerous substances contained in waste.
- Ways to encourage the recovery of waste by means of recycling, reuse or reclamation or any other process with a view to extracting secondary raw materials.
- Ways to use waste as a source of energy.

In no way can the policies on waste reclamation in the plan be considered to meet the requirements of the Directive – the main waste management policy of the plan in terms of identifying sites, and providing capacity to manage waste, is totally structured towards bulk disposal via landfill.

The MWLP should concentrate on allowing the development of systems for the collection, processing and reclamation of all types of waste. That means that all developments – both houses and industrial premises – should make provision in their design and layout for the storage and easy collection of waste materials. There should also be greater emphasis on the provision of community recycling facilities such as bring banks, both within the community and at major community facilities such as shops, schools and the main industrial areas. If bring facilities cannot be adequately located within the community where they can be accessed without using private transport, then they should be located at major centres such as superstores, transport hubs such as bus or rail stations, and major employment sites. This is because the delivery of the recyclable materials by private transport will be incidental to the energy balance (that is, the journey would have been made anyway) and will not actually encourage the use of energy to deliver recyclable

ⁱ The ‘relevant objectives’ are enacted by paragraph 4, schedule 4 of the Waste Management Licensing Regulations, and DoE circular 11/94 on those regulations specifically directs in paragraph 1.54 that regard should be had to the quoted objectives.

materials to bring banks.

In the first instance the important contribution land use planning can make to sustainable waste management is to facilitate the easy storage and centralised or bulk collection of materials.

The recycling of industrial waste should, first and foremost, be carried out within the plant itself. For example, if an injection moulding company separates, chips and remoulds its waste plastic as part of normal production then that process will use less energy and cause less pollution. Where waste cannot be reused on site, then facilities should be made, as part of the overall layout of the plant, for the bulk storage of that material in order that it can be collected more economically. Planning policy should make this option easier for local businesses.

The recycling of construction wastes is, in our opinion, a priority. This is because construction waste arises in large quantities, and there are very few applications which it can be put to usefully. MPG6 sets a target for the production of secondary aggregates, and the MWLP should set targets for the production of secondary materials, apportioned from the national target according to Lancashire's allocation for crushed rock, sand and gravel. Accordingly, the allocated figure for primary production should be lowered by the same amount in order to create demand for this lower grade material.

In order to redress the imbalance within the plan Lancashire County Council must:

1. Undertake a search to find a sites within each district where transfer stations can be located for the reception and bulking up of segregated municipal, commercial and industrial waste. The purpose of such transfer stations will be to bulk up waste for shipment to processing facilities so reducing transport impacts.
2. Identify a number of sites across the County where material recovery facilities can be developed for the sorting and processing of a significant proportion of the municipal, commercial and industrial waste streams. The purpose of this is to provide the capacity to carry out as much of the processing as can be achieved in order to 'add value' to the recycled materials, and ensure that jobs and wealth are generated within Lancashire.
3. Policies must be developed with respect to the handling and use of materials in demolition and construction, both within sites and for materials that are taken off sites, ensuring that as much material as possible is reclaimed.
4. Consistent with (3) above, the requirement for primary aggregates in Lancashire must be lowered in order to create demand for secondary materials. We suggest that the plans should set a target of producing 11.8 million tonnes of secondary aggregate by 2006 (see our objection DEP5159/1/19 for the worked calculation). Primary production of lower grade aggregates should be cut by the same figure.
5. In order to create an incentive to set up alternative facilities, the requirement for landfill in Lancashire should be cut by 20% (i.e., by projecting a decrease in landfilling of 40% by 2006 the actual cut in total capacity will be half this figure – 20%). If the County Council are truly committed to meeting the structure plan target then this step must be taken.
6. Whilst not a key part of the overall planning strategy, steps must be taken to ensure that measures are taken at 'captive' sites to reduce the levels of material being deposited on land.
7. Given that local planning authorities should have regard to the production, collection and reprocessing or disposal of waste under the EC Framework Directive on Waste, the MWLP should direct local planning authorities to demand a statement from developers on the precise proposals for how waste will be handled on the site, and where it will be disposed of.
8. As part of the overall strategy, there should be a policy to encourage – in tandem with the strategies of local plans (and future UDPs) – the regeneration and renewal of industrial sites in order that local industry can develop cleaner production systems.

In conclusion

We do not believe that the Lancashire Minerals and Waste Plan sets a meaningful strategy for encouraging a shift away from unsustainable waste management options towards more sustainable ones. The whole construction of the strategy is very much “*business as usual*” (the ‘status quo’ of paragraph 12.20 of the MWLP).

It is clear from our analysis of the plan that the locations chosen for the development of landfills in the county do not in any way meet those areas with the greatest need. The plan must assess individual sub-areas and address the need in those areas consistent with the proximity principle. The current area-wide approach is not sensible or sustainable.

There must be a shift in plan policies away from ‘primary’ production and ‘bulk’ disposal. That means encouraging the alternatives through demand management measures. Planning guidelines require that sufficient provision be made in the plan for future need. We are not advocating that this requirement should be set aside. What we are advocating is that the provision of waste disposal capacity should facilitate an unrestricted demand for those option we wish to encourage while seeking to set a cap on the provision of those option we wish to see diminish.

The plan should seek to meet the structure plan and ‘*Making Waste Work*’ commitment to reduce waste going to landfill by 40% by 2006 by cutting the provision for landfill by 20% over the lifetime of the plan. Our analysis shows that the major landfill commitment in the plan – Round O Quarry – is unnecessary, and the location is completely wrong. It should be withdrawn.

It is inconsistent that the plan seeks to define locations for the bulk disposal of waste to landfill, but it does not identify the ‘*integrated network of sites*’ for the sorting, recovery and recycling of waste materials. The plan must make sites available in the plan in order to provide confidence to industry to invest in the facilities to accept waste. If this does not take place then the development of the alternatives to bulk disposal will happen very slowly, and Lancashire will not meet the targets set in national guidelines.

In accordance with the principles contained in the ‘*relevant objectives*’ of the EC Framework Directive on Waste, the County Council must widen the scope of the plan to include areas which are not related directly to the provision of disposal capacity. That means becoming more involved with the development control aspects of housing and employment development. It also means taking a more proactive role on the control of demolition and construction, and encouraging existing industry to invest in cleaner production technology by assisting in the redevelopment of their premises.

END

Appendix 1: Reassessment of Biodegradable Waste Requirement in Lancashire

In order to give a more realistic appraisal of waste disposal in Lancashire, we have reassessed the County Council's 'whole area' approach. We have divided the County into four distinct 'sub-areas' (based around current district council boundaries) to see in detail not only how much landfill capacity is required, but where that capacity is required.

We have grouped districts on the following basis:

'Group 1': Lancaster	'Group 2': Wyre Blackpool Fylde Preston	'Group 3': South Ribble West Lancashire Chorley	'Group 4': Ribble Valley Blackburn Hyndburn Burnley Pendle Rossendale
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There was no detailed information in the County Council's reports of waste arisings in each district. For this reason we have had to apportion the figures in the County's statement on landfill according to the population of each district. The population figures used were taken from the County's 'green audit'ⁱ – the exact numbers are not critical since it is the weighting between areas that is important, not the current population. The figures for waste arisings used (denoted X and Y on the spreadsheet) were taken from the third column of table 11 of the County's statement. This gives the average including a 4% increase for population growth.

Using tables 1, 2, 6 and 7 of the County's statement, the available landfill capacity for each of the four 'grouped' areas was calculated. As a checksum, it should be noted that for biodegradable wastes, the totals in the spreadsheet correspond to the totals in tables 10 and 11 of the County's statement.

As part of our analysis we have considered three scenarios, rather than the two considered by the County. These are:

- *Scenario 1 – do nothing.* This corresponds to the County's 0% reduction figure;
- *Scenario 2 – 25% reduction in landfill.* This corresponds to the County's 25% reduction figure;
- *Scenario 3 – 40% reduction in landfill.* A 40% reduction figure was selected as this is the Government's stated target in 'Making Waste Work'ⁱⁱ.

The annual arisings of waste in each of the group areas was calculated as:

$$A = T * (1 - (R / 2)) \quad \text{where } T \text{ is the total waste in } te, \text{ and } R \text{ is the reduction in waste going to landfill in } \%.$$

The next stage is to divide the landfill capacity in each grouped area to produce the remaining life of the sites. This is calculated as:

$$L = V / (A / W) \quad \text{where } V \text{ is the available void space in } m^3, \text{ and } W \text{ is the density of the emplaced waste } te/m^3.$$

As the household and non-household waste figures are being combined, it was also necessary to work out a density figure proportionate to the total waste. This was calculated as:

ⁱ "Lancashire – A Green Audit", Lancashire County Council

ⁱⁱ "Making Waste Work: A Strategy for Sustainable Waste Management in England and Wales", Cm3040, HMSO December 1995.

$W = (T_h \times D_h + T_n \times D_n) / (T_h + T_n)$ where T_h is the quantity of household waste, D_h is the density of household waste, T_n is the quantity of non-household waste and D_n is the density of non-household waste.

Finally, to put the lifetime of the sites in a more meaningful context, 'L' is added to the base date of the void space projections, March 1997 ('1997.25').

As is clearly demonstrated from the results, different areas of the County have different demands for landfill capacity.

In order to quantify the need, the projections were rolled forward to March 2008, and the landfill availability assessed in cubic metres rather than years (see right hand side of last box). These figures are calculated, for each scenario, as:

$C = V / [(A / W) * 11 \text{ years}]$ where C is the available capacity at March 2008.

The purpose of this analysis is to indicate where the MWLP needs to develop capacity towards the end of the plan period, given that the development of a site has a two to three year lead time.

The results of this analysis, as we interpret them, are as follows:

- Even on the 'do nothing' approach, there is sufficient capacity for landfill in Lancashire until the end of the plan period;
- The two areas that need increased disposal capacity are the middle of Lancashire (group 2), but more significantly the eastern districts (group 4);
- Assuming that there is a modest decline of a few percent in waste arisings, the southern districts of Lancashire will not need new capacity until after the plan period;
- The northern area of the County (group 1) has the highest provision of landfill, and should not need new disposal facilities until well into the next plan period;
- If the '*Making Waste Work*' target of reducing landfill by 40% were met by 2005/6, then no new disposal capacity would be required until mid-2006 in the east of the County;
- These projections consider only a linear reduction in waste going to landfill – in reality the effect of more recycling is to 'cherry pick' the best waste at the beginning of the change in strategy (from disposal to recycling) which produces a non-linear result. This means that more waste may actually be diverted away from landfill over the period 2000-2006 than is allowed for in these projections.

In terms of ARROW's main objection, we believe that the new data on waste capacity and demand in Lancashire demonstrates that Round O Quarry would not be a suitable site for a landfill. This is because there is sufficient capacity for most of the plan period, and the actual need for a large increase in capacity is on the eastern area of the County.

In order to have a more accurate assessment of need, we recommend that the following data should be produced by the County Council/the Environment Agency, in order to validate these results:

- There should be a more detailed study of waste production in each district, with an assessment of where the waste is moved to, and its composition. Data on composition is necessary in order to develop the economic 'business plan' for waste recovery schemes.
- Rather than setting arbitrary figures for waste reduction, the County Council and the Agency should identify sites where facilities for recycling and composting/digestion of waste could take place. It is essential that alternative facilities are found before 2000 if the 2006 targets are to be met.