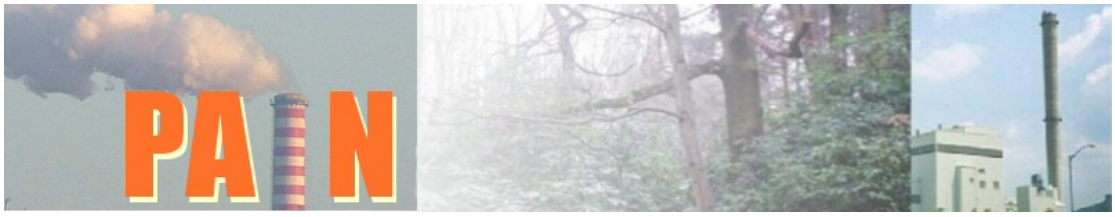

People Against Incineration (PAIN)

Wrong site,
Wrong technology

Part 1 of
PAIN's Planning Objections
to Veolia's Waste Incinerator
Application ES/1144

February 2008

Contents

Background

People Against Incineration (PAIN) is a fully-constituted not-for-profit membership organisation with hundreds of members and thousands of supporters. PAIN was formed after the success of Mansfield Against Incineration (MAIN) in preventing the building of a waste incinerator in Forest Town, Mansfield. In 2005 Mansfield District Council (MDC) passed two separate motions opposing waste incineration in North Nottinghamshire. MDC withdrew land for sale, handing victory to MAIN. This is confirmed in the Final Business Case document (page 22) sent by Nottinghamshire County Council (NCC) to Defra, which reads: "A site for the ERF was identified…but…a local action group was formed which has resulted in the owner [MDC] removing the site from the market".

PAIN regrets Veolia's decision, and indeed NCC's decision, not to engage in dialogue with the community, and not to rethink their plans before submitting the application now under consideration. Throughout this long process, first MAIN then PAIN attempted to make positive contributions to addressing the issue of how materials discarded by Nottinghamshire residents could best be managed. PAIN views Veolia's current proposals as a distraction, and as a waste of time and energy, delaying the formulation of a sound Municipal Waste Strategy that complies with the National Waste Strategy (May 2007), and that ensures waste is managed in accordance with the waste hierarchy and acknowledged best practice.

Reasons for PAIN's objection to planning application ES/1144 are outlined in this document. As much relevant information has been withheld from PAIN, not least the details of the Waste PFI contracts, despite repeated requests covered by Environmental Information Regulations, the Freedom of Information Act and the Aarhus Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters, PAIN reserves the right to submit additional objections as new information comes to light.

Compiled by PAIN's Legal and Research Team
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Summary of PAIN's Planning Objections

- **Non-compliance with the waste hierarchy**
  The proposal is for a waste disposal facility. As such it is to be judged on whether or not waste will be managed in accordance with the waste hierarchy. The proposed facility fails this simple test. PAIN objects to the application on the grounds that proposals do not comply with the waste hierarchy, in that waste incineration should not be used in preference to waste reduction, reuse, recycling and composting (including anaerobic digestion).
- **Non-compliance with the National Waste Strategy**
  The May 2007 National Waste Strategy encourages Local Authorities to use anaerobic digestion for biodegradable waste. This is based on recent research demonstrating "that anaerobic digestion has significant environmental benefits over other options [including incineration]…" The digestate produced by anaerobic digestion has a range of potential uses on land, including as a fertiliser or soil improver. The building of a waste incinerator is bound to have a detrimental impact on recycling and composting rates. PAIN objects to the application on the grounds that waste incineration will result in non-compliance with the National Waste Strategy.
- **Lack of Need**
  No convincing evidence of need is provided by the applicant. Regardless of whether or not a credible case could have been made in 2002 to justify this application, it must now be considered in light of the current and likely future situation. As such, no convincing evidence of need is provided by the applicant. In fact, the figures provided by the applicant demonstrate that any incinerator would have to rely upon either Municipal Solid Waste imported from outside the County, in violation of the proximity principle, and/or upon Commercial and Industrial Waste. PAIN objects to the application on the grounds that evidence of need has not been supplied.
- **Disposal not recovery**
  The proposed waste incinerator fails to meet the requirements for a recovery operation. In the event of a shortfall of waste, alternative fuels will not be used to generate energy, and the efficiency of energy generation falls well short of the 60%-65% minimum required of energy recovery facilities. Veolia's use of the term 'energy recovery facility' in the application is technically incorrect, and therefore misleading. PAIN objects to the application on the grounds that it is not for an energy recovery facility.
- **Climate Change**
  Without definitive arrangements for heat capture Veolia's proposals are inconsistent with the Key Planning Objectives set out in PPS 1 (Supplement), and planning permission should therefore be refused. PAIN objects to the application on the grounds that it does not accord with PPS 1 (Supplement), and does not adequately address a host of additional related concerns.

- **Pollution to water**
  PAIN has serious concerns regarding the prospect of irreversible damage befalling the aquifer (drinking water) and the potential contamination of ground water and fisheries. Veolia's proposals are not sufficiently detailed to properly assess these risks, and they offer little by way of information to assess whether or not their proposed mitigations will be sufficient to ensure water safety for the next 25 - 50 years. PAIN objects to the application on the grounds that a more cautious approach to protecting water safety should be adopted.
- **Site status**
  The application misleadingly uses the phrase 'brownfield in character' and claims that coal stocking is ongoing. PAIN understands that the site is classed as greenfield (due to restoration condition) and that coal stocking and blending activities ceased sometime between June and October 2007. PAIN understands that the site is described as the missing piece of the planned Sherwood Forest Regional Park. Veolia's planning application acknowledges that if an incinerator is built the site would no longer be included in these plans, and there could be wider implications that are considered of regional, national and even international significance. PAIN objects to the application on the grounds that a greenfield site is not suitable for the development proposed.
- **Nature Conservation**
  PAIN does not feel that adequate attention has been given to the application's potential negative impacts on local nature habitats and biodiversity. PAIN objects to the application on the grounds that the risk posed to nature conservation is unacceptable, and that Sherwood Forest is unsuitable for the development proposed.
- **Non-compliance with other policies**

Other concerns:

- **Ground instability**
- **Bottom Ash Safety**
- **Ozone / smog**
- **PM 2.5 and smaller (nano) particles**
- **Air quality**
- **Persistent Organic Pollutants**
- **Danger to human health**
- **Chimney stacks**
- **Likely emissions**
- **House prices**
- **Employment**
- **Un-sustainability**
- **Miscellaneous**
- **PAIN's points re: Non-Technical Summary**
- **PAIN's points re: Planning Supporting Statement**
- **PAIN's points re: Environmental Statement**
- **PAIN's comments re: The Liaison Group**
- **Call-in**

PAIN's Detailed Objections

Non-compliance with the waste hierarchy

The proposal is for a waste disposal facility. As such it is to be judged on whether or not waste will be managed in accordance with the waste hierarchy. The proposed facility fails this simple test. Discarded material that can be reused, recycled, composted or more efficiently utilised to generate energy, would instead be incinerated. Such a process typically produces toxic ashes and residues that are sent to landfill. The proposal under consideration could create some 60,000 tonnes per annum (tpa) of ash and residue to be sent to hazardous landfill sites for disposal.

Nottinghamshire County Council's Final Business Case to Defra (for PFI credits) outlines the history of the decision-making process that led up to the application currently being considered. It notes: "Veolia have been unswerving in their proposal that Energy Recovery by Incineration is the only technical solution that can provide guaranteed diversion at a known risk and financial profile. At ITN they proposed an Energy Recovery Facility to serve the greater Mansfield/Ashfield area, where the majority of waste outside of the greater Nottingham conurbation is produced, to handle 120 ktpa of residual waste". This was subsequently increased by 60,000 tpa to include kitchen (food) waste. "Following detailed discussions and interaction between suppliers the size of this facility has been increased to 180 ktpa, which gives Nottinghamshire a virtually non-BMW landfill solution from 2011…"

In relation to the waste hierarchy, it is universally agreed that recycling and composting are to be favoured over incineration of kitchen waste, yet the applicant intends to burn between 60,000 - 140,000 tpa of organic matter that could (indeed should) be composted.

Incinerators require continuous feeding of material of sufficiently high calorific value "primarily provided by…materials that can be recycled…[limiting] the effectiveness of local recycling initiatives" [Bostock A (2005) Waste Incineration and its Impact on Health, the Environment, and Sustainability, October 2005 Version 1.3, p.34]. Local Authorities become locked into contracts to supply high volumes of waste, capping recycling in some areas, while leading to refusals to grant planning applications in others.

East Sussex County Council is "so worried it may not be able to fulfil its contract that it has now capped Lewes and Wealden's recycling levels - effectively penalising them if they recycle more than about 30% of their waste" [Vidal J Burning issue Guardian newspaper Wednesday 9th August 2006].

In 1995 Cleveland County Council signed a contract to supply waste for incineration. A 12,000 tonnes 'shortfall' in the first year led to penalties of £147,000 [ENDS (1996) Emission deadline heralds new era in municipal incineration]. The Associate Director of Environmental Services at Stockton Borough Council said "essentially we are into waste maximisation… constrained from doing even a modest amount of recycling".

An application to expand the Edmonton incinerator was rejected because a larger incinerator would give the local authority "little incentive to do more recycling over and above the statutory minimum; and meeting or bettering recycling targets would lead to a shortfall…[resulting in] waste being imported from other areas, in contradiction of the proximity principle" [Statement by Energy Minister Brian Wilson, 23 May 2002].

The Inspector considering the Ridham Dock application concluded that if permission were granted the "provision of greater incineration capacity than necessary would tend to undermine efforts to increase waste recycling and recovery locally, and encourage the transportation of waste from a more widespread catchment area" [Planning Inspectorate (2002), Ridham Dock, Kent, 17 Oct 2002 APP/W2275/A/01/1061392].

PAIN objects to the proposal on the grounds that they do not comply with the waste hierarchy, in that waste incineration should not be used in preference to waste reduction, reuse, recycling and composting (including anaerobic digestion).

Non-compliance with the National Waste Strategy (May 2007)

The waste hierarchy is reaffirmed in the new National Waste Strategy. Although the Strategy is referred to in Veolia's application, the quote is misleadingly taken out of context. It should be noted that the excerpt from the strategy quoted relates to anaerobic digestion, and not to incineration. The full quote should read: "The Government wishes to encourage more consideration of the use of anaerobic digestion both by businesses and local authorities…Our recent research [*Carbon Balances and Energy Impacts of the Management of UK Wastes*, March 2007] has suggested that anaerobic digestion has significant environmental benefits over other options [including incineration] and may be particularly cost effective for food waste [see www.wrap.org.uk/biowaste for further information]…The digestate produced by anaerobic digestion has a range of potential uses on land, including as a fertiliser or soil improver".

The National Waste Strategy acknowledges that: "Although anaerobic digestion is currently a commonly used technology in some other European countries this is not the case in England". In light of this, the UK Government has offered double Renewable Obligations Certificates (ROCs) for anaerobic digestion. Minister Joan Ruddock highlighted two major Government initiatives to help promote the use of anaerobic digestion. Firstly, the protocol being developed by the Environment Agency and WRAP, which could see digestate fertiliser reclassified as a "non-waste" if it meets certain standards. The second initiative would provide additional support for anaerobic digestion via the Government's Renewables Obligation Certificate scheme. According to the Minister, "The Energy Bill is to double the current subsidies available for producers of renewable energy for energy generated via anaerobic digestion".

It is worth noting that Veolia intend to burn kitchen waste and other biodegradable (and therefore compostable) material, as well as recyclable material such as plastic carrier bags and other recyclable plastics, in the proposed waste incinerator. Finally, as the facility would require constant input of feedstock, the building of a waste incinerator is bound to have a detrimental impact on recycling and composting rates (see also Lack of Need, below).

PAIN objects to the application on the grounds that waste incineration will result in non-compliance with the National Waste Strategy.

Lack of Need

PAIN does not believe that Nottinghamshire needs a waste incinerator to avoid Landfill Taxes, and the figures provided by Veolia appear to support this view. In order to attempt to justify the 'need' for a waste incinerator, Veolia was forced to:

- exaggerate predictions of future waste arisings;
- under-report the (60,000 tpa) quantity of waste to be sent to Eastcroft;
- fabricate landfill figures (providing no justification or rationale for these);
- replace the actual 37% recycling figure for 2006/07 with an estimate of only 30%;
- ignore the need to landfill hazardous and eco-toxic waste generated by the proposed facility; and
- plan to miss even the modest 50% combined recycling and composting target, for each of the next 25 years (see Table 5.7 reproduced below).

Table 5.7: Management of Residual Waste (output tonnes) Nottinghamshire 2006/ 2033

Year	MSW Arisings	Target Recycling Rate	Target Recycling Tonnage	Actual Recycling Tonnage	Residual Waste		
					Rufford ERF	Eastcroft	Landfill
2006/07	400,422	30%	110,707	141,646	-	33,815	210,000
2009/10	498,253	42%	193,113	205,376	-	40,600	233,953
2012/13	507,401	47%	220,130	220,617	180,000	40,600	47,585
2019/20	513,806	52%	246,624	241,090	180,000	40,600	33,116
2025/26	513,806	52%	246,624	241,090	180,000	40,600	33,116
2032/33	513,806	52%	246,624	241,090	180,000	40,600	33,116

Table of 3 possible scenarios for 2020

Scenario in 2020	MSW Arisings	Recycling Rate	Recycling Tonnage	Residual Waste			
				Rufford	Eastcroft	Landfill	Ash (not accounted for)
Veolia's figures (corrected)	513,806	52%	267,179	153,511 **26,500 shortfall**	60,000	33,116	64,000-85,000
Higher recycling / stable waste / zero waste to landfill	400,000	67%	268,000	72,000 **108,000 shortfall**	60,000	0	40,000-53,000
Modest recycling / modest fall in waste / use LATS	370,000	60%	222,000	0 **180,000 shortfall**	60,000	45,680 bioactive and 42,320 inert	approx 20,000 from Eastcroft

Put another way, in 2019/20, if we take waste arising to be 400,000 tonnes, a 52% recycling rate would leave 192,000 tonnes [a 62% recycling rate would leave 152,000 tonnes], subtracting the 60,000 tonne commitment to Eastcroft, we are then left with 132,000 tonnes [or 92,000 tonnes if 62% were recycled or composted]. NCC's Landfill Allowance for 2019/20 (for the biodegradable fraction only) is 84,640 tonnes. Assuming NCC buys no additional LATS Credits and does not use any banked LATS, and assuming that the remaining 47,360 tonnes [or 7,360 tonnes] to landfill was inert, there would literally be no household waste 'contribution' to an incinerator from anywhere in the County.

A recent report by the National Assembly for Wales concludes that recycling rates of 70% and above are both possible and economic. "During the recent modelling exercise…and based on detailed scrutiny of the data, it was estimated that up to 93.3% of Welsh municipal waste could either be recycled or composted / anaerobically digested".

No wonder NCC's original project objectives for the Waste Contracts featured anaerobic digestion and not incineration. NCC's report states: "Given the presence of an existing Energy from Waste (EfW) facility at Eastcroft, it is considered that no significant additional EfW capacity will be required through this PFI project" (NCC's Final Business Case to Defra, p.17).

PAIN recognises that when NCC embarked on its procurement process, waste arising was on the increase and the desire to invest in new waste management facilities to avoid Landfill Taxes was understandable. Since that time however Household Waste in Nottinghamshire has fallen, and looks likely to continue to fall as the result of waste packaging legislation, super-market waste reduction agreements, the Waste Electrical and Electronic Equipment regulations, and the rising public commitment to waste reduction and increased reuse, recycling and composting. Regardless of whether or not a credible case could have been made in 2002 to justify this application, it must now be considered in light of current and likely future scenarios. In this regard, no convincing evidence of need is provided by the applicant.

Upon closer examination, Veolia's 'evidence of need' for a household waste incinerator to burn residual waste generated by the residents of Nottingham-shire provides evidence that any incinerator would have to rely on either Municipal Solid Waste imported from outside the County, in violation of the proximity principle, and/or upon Commercial and Industrial Waste.

It should also be noted that Veolia relies heavily on the Waste PFI contracts to justify their plans, but without access to these documents in their entirety it is impossible to assess these claims. As Veolia declare in their planning application that the PFI contracts 'effectively replace' the County's existing Municipal Solid Waste Strategy, and as (non-)compliance with the Strategy is a material planning consideration, these contracts become material planning considerations, and their non-disclosure invalidates the planning application's current consultation process, leaving any decision open to legal challenge.

PAIN objects to the application on the grounds that evidence of need has not been supplied.

Disposal not recovery

The proposed waste incinerator fails to meet the requirements for a recovery operation in two significant respects:

1. The facility is designed for waste disposal and not for energy recovery. In the event of a shortfall of waste, alternative fuels will not be used to generate energy; and
2. The efficiency of energy generation falls well short of the 60-65% minimum required of energy recovery facilities.

According to Chapter V of the EU Waste Directive, entitled Permits or registration, SECTION 1 PERMITS, SUBSECTION 1 GENERAL, Article 19: "It shall be a condition of any permit covering energy recovery that the recovery of energy is to take place with a high level of energy efficiency".

And ANNEX II RECOVERY OPERATIONS states clearly that: "R1 Use principally as a fuel or other means to generate energy. This includes incineration facilities dedicated to the processing of municipal solid waste only where their energy efficiency is equal to or above: 0.60 [60%] for installations in operation and permitted in accordance with applicable Community legislation before 1 January 2009, [and] 0.65 [65%] for installations permitted after 31 December 2008, using the following formula: Energy efficiency = (Ep -(Ef + Ei)) / (0.97 x (Ew + Ef))…This formula is based on information contained in the reference document on the Best Available Techniques for waste incineration".

The proposed facility falls well short of the 60%-65% requirement for energy recovery. Veolia's use of the term 'energy recovery facility' in the application is technically incorrect, and therefore misleading. PAIN objects to the application on the grounds that it is not for an energy recovery facility.

Climate Change

The National Waste Strategy's Environmental Statement (Annex K, page 16) "…makes clear that energy should be recovered only from residual waste that cannot viably be recycled, as well as certain biomass wastes such as wood and food waste (via anaerobic digestion) where there are clear carbon benefits of doing so". Annex E, page 1, Item 4 indicates that the siting of energy-from-waste plants should allow maximum use of both the heat and power produced, yet the availability of users for heat does not appear to have been a site selection criterion in this instance. By failing to harness most of the heat, this application is for a facility that will make an unacceptable contribution to worsening climate change through the release of harmful carbon dioxide and other greenhouse gas emissions.

The application does not appear to have taken account of Planning Policy Statement - Planning and Climate Change - Supplement to Planning Policy Statement (PPS) 1. It should be noted that: "Where there is any difference in emphasis on climate change between the policies in this PPS and others in the national series, this is intentional and this PPS takes precedence."

According to PPS 1 (Supplement): "... applicants for planning permission should consider how well their proposals for development contribute to the Government's ambition of a low-carbon economy and how well adapted they are for the expected effects of climate change. Applicants and planning authorities should bear in mind that the policies in this PPS are capable of being material to decisions on planning applications…climate change considerations should be integrated into all spatial planning concerns".

"In considering planning applications before Regional Spatial Strategies (RSSs) and Development Plan Documents (DPDs) can be updated to reflect this PPS, planning authorities should have regard to this PPS as a material consideration which may supersede the policies in the development plan".

Under Selecting Land for Development: "In deciding which areas and sites are suitable…planning authorities should assess their consistency with the policies in this PPS. In doing so, planning authorities should take into account: …the capacity of existing and potential infrastructure (including for waste management...) to service the site or area in ways consistent with cutting carbon dioxide emissions".

Under Determining Planning Applications: "In the interim period before the development plan is updated to reflect the policies in this PPS, planning authorities should ensure proposed development is consistent with the policies in this PPS…Where proposals are inconsistent with the Key Planning Objectives set out in this PPS, consideration should be given to how proposals could be amended to make them acceptable or, where this is not practicable, to whether planning permission should be refused".

Under Compliance and Enforcement: "Planning authorities in considering their approach to compliance and, when necessary, whether it is expedient to take enforcement action, should have particular regard to the highest priority placed by Government on mitigating climate change..."

On several recent occasions, when faced with similar proposals, the Scottish Environmental Protection Agency (SEPA) [equivalent to the Environment Agency in this case], in their role as consultees commenting on the planning application, provided evidence as follows:

- SEPA objects to the proposal on the grounds that the applicant has not demonstrated a need for development of an Energy for Waste plant
- SEPA gave consideration to potential energy recovery. While the Environmental Statement comments on a possible "symbiosis" between the proposed EfW plant and neighbouring businesses in terms of the exportation of energy by heat and power, the proposals are vague and timescales imprecise. SEPA is of the view that this proposal should integrate an energy recovery system which would ensure that embedded energy in waste that will be burned is not lost.
- SEPA objects on the grounds that the proposal does not maximise potential energy recovery in accordance with national planning policy
- Whilst the ES justifies the "need" for this EfW plant relative to the SOC [equivalent to the Waste PFI], the SOC was not submitted as supporting information. SEPA therefore recommends that the ES is expanded to explain clearly the rationale behind the "need" for [the proposed] EfW
- The ES does not specify what will happen to boiler blowdown effluent. These are high temperature effluents and if discharged without adequate control may result in harm to the local water environment. The cooling and storage of this effluent may require additional land take.
- Based upon the information contained in the ES, it would appear that an assessment of the environmental impact of any firewater on watercourses or land has not been carried out. SEPA…recommends that a study is carried out. Article 8(7) of the WID requires that adequate storage capacity for firewater (and other effluents) is provided. SEPA will need to be satisfied that such provision has been made (or will be made before operations commence) before it would be able to grant a PPC permit. It is important to note that this may require additional land take.
- SEPA is unlikely to view the thermal treatment of municipal waste without energy recovery (both heat and power) as BAT. Furthermore Article 6(6) of the WID states that "*any heat generated by the incineration or co-incineration process shall be recovered as far as practicable*". It is therefore likely that SEPA would expect the applicant to address both power generation and heat recovery in any BAT assessment that would accompany a PPC application. In the event that the applicant was unable to demonstrate to SEPA's satisfaction that heat recovery could be guaranteed as far as practicable, the Agency would conclude that proposals are not BAT compliant. SEPA draws your attention to the undernoted points relative to energy efficiency, extracted from the Sector Technical Guidance Note IPPC S5.01 (Guidance for the Incineration of Waste and Fuel Manufactured from or Including Waste)(Section 2.7.3):

  General points:

  - Use of heat generated for electricity generation for on-site or off-site use is expected for the majority of new installations.
  - Use of higher efficiency electrical generation technology.
  - Use of steam from boilers in on-site or off-site applications.
  - Use of waste heat for CHP or district heating (potential to increase overall thermal efficiencies from approx 20 to 75%)

Points relating specifically to the Incineration of Municipal Waste

- Waste heat should be recovered unless to do so can be demonstrated not to represent BAT. All opportunities for CHP and district heating should be explored.
- The siting of plant near to potential or actual energy users will aid the maximising of energy recovery potential. Consideration should be given to joint venture projects wherever possible.

- SEPA is concerned that there are no prescriptive proposals and timescales for realising long term heat recovery. Given the indicative nature of the concept masterplan of the future development…and uncertainty relative to the development of neighbouring uses, SEPA is of the view that the proposals are speculative rather than definitive.
- SEPA considers that it is important to access unambiguous data in determining whether the proposed plant is likely to conform to BAT. The ES indicates that electricity will be generated at the plant for distribution to the national grid and discusses briefly other methods of energy recovery including heat recovery. However, SEPA considers that the proposals for the potential recovery of heat in the future, described in the ES, are vague.
- Importantly, SEPA's Thermal Treatment Guidelines are a material planning consideration when determining planning applications involving burning of municipal waste (Para 44, PAN 63). These Guidelines state that maximum energy should be recovered, ideally encompassing combined heat and power. Given the imprecise nature of the proposals, the ES does not give confidence that the proposed EfW plant can comply with SEPA's Guidelines. Accordingly, in the absence of any information or evidence to demonstrate that maximum energy recovery could be achieved, SEPA objects to the proposal on the grounds that it does not meet the requirements of PAN 63 and Draft SPP10.
- The ES should clearly outline the planning site selection process, how it was drawn up, and why site selection criteria were chosen based on national and local planning policy.
- A "heat plan" should be fully addressed in the ES outlining, for example, the following information and providing some detail of any discussions with planning authority, developers and economic development staff regarding development plan zonings and future development proposals in the area:
    - location of potential users;
    - percentage of heat to be recovered;
    - timetable of works (ideally within a maximum timeframe of 5 years);
    - indication of route of pipework
- SEPA have previously provided the applicants with copies of dvds which include examples of how heat recovery has been maximised in Shetland and Europe and if further copies are required please let us know.
- The ES should fully address how the applicants will ensure that only "residual" waste (i.e. waste where all efforts have been made to extract recyclable and compostable materials) will be burnt…the ES needs to clarify how the applicants will ensure that only residual waste will be burnt, and make it clear how this is going to be enforced and monitored, and also how they will deal with any non segregated waste.

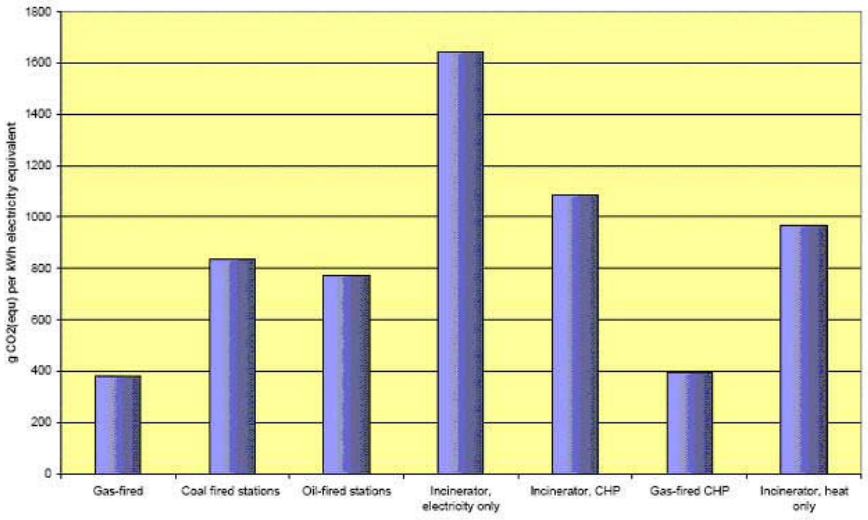
- SEPA highlights that it is a requirement of the WID that the applicant takes all necessary precautions concerning the delivery and reception of waste in order to prevent or to limit as far as practicable negative effects on the environment and to human health. SEPA therefore recommends that the applicant be required to further assess the appropriateness of the method and location of waste assessment and ensure that the proposed inspection of waste would meet WID requirements. Facilities for identifying and removing unacceptable waste should be provided. It is not clear from the ES whether the applicant has considered this. Importantly, SEPA understands that a lack of adequate waste assessment prior to waste transfers into operating incinerators has caused process difficulties, resulting in 'down time' at other plants.
- SEPA notes that the proposal is based on electrical generation alone and that vacuum condensing turbines are slightly more efficient than non vacuum condensing turbines. SEPA would, however, seek overall energy efficiencies of between 60 to 75% where appropriate heat recovery is coupled with electricity generation. SEPA is concerned that there are no prescriptive proposals and timescales for realising heat recovery now or at any time in the future. Indeed, the waste heat is to be vented to the atmosphere via air cooled condensers.
- SEPA considers that it is important to access data in determining whether the proposed plant is likely to conform to BAT. The ES indicates that electricity will be generated at the plant for distribution to the national grid but does not discuss other methods of energy recovery including heat recovery.
- SEPA is unable to conclude, on the basis of the information contained within the Environmental Statement, as to whether the development is capable of being consented in terms of energy recovery (which is a material planning consideration), therefore at this stage SEPA objects.
- SEPA is concerned that the potential impacts from pollutants (other than oxides of nitrogen, (NOx)) were discounted very early in the assessment stage. While the ADMS model does address these other pollutants SEPA would require, in any PPC application, a full and robust assessment of impact including for example potential impacts on vegetation in sensitive sites located nearby. For example, the assessment undertaken has relied on air quality standards for the protection of human health only. Additionally by only using NOx background data the assessment may be limited as it does not appear to take account of other sources of similar pollutants
- SEPA would advise the applicant to conduct ambient background monitoring for NO_2, PM10, PM 2.5 and PAH's (benzo-a-pyrene) which will also determine the likely effect of emissions from other processes in the area

The EA informed PAIN that "*new plants should be carefully sited in order to maximise opportunities for CHP*". This is not the case for the proposed Rufford incinerator, as this was not a criterion used for site selection. BAT for energy efficiency will only be satisfied provided the Operator meets the following conditions: **either** the Operator meets the basic energy requirements and is a participant to a Climate Change Agreement (CCA) or a Direct Participant Agreement (DPA) within the Emissions Trading Scheme **or** the Operator meets the basic energy requirements and the further sector-specific energy requirements.

Note: even where a Climate Change Agreement or Direct Participant Agreement is in place, this does not preclude consideration of energy efficiency as part of BAT assessment where they impact on other emissions, e.g. where choice of fuel impacts upon emissions other than carbon, e.g. sulphur in fuel; minimisation of waste by waste-to-energy does not maximise energy efficiency, e.g. by Combined Heat and Power (CHP); the most energy-intensive abatement leads to the greatest reduction in other emissions.

Waste incinerators typically emit between .7 and 1.3 tonnes of CO2 per tonne of waste (depending on waste composition). The proposed facility would therefore be expected to emit between 126,000 and 234,000 tpa of CO2 each year. The Stoke incinerator released 209,000 tonnes of CO2 in 2006 (it burns around 180,000 tonnes of waste per year). This represents an unacceptable and unwelcome contribution to climate change. Research shows that electricity-only incinerators, such as the one proposed by Veolia, are worse (from a climate change perspective) than coal-fired power stations. The energy to be recovered in the proposed facility represents only about 20% of the calorific value of the material fed in to the incinerator. This compares unfavourably with the 35% - 50% efficiency achieved by coal-fired and gas turbine power stations, let alone the much higher efficiency rates achieved by anaerobic digesters and other technologies. The proposed incinerator would produce more CO2 per unit of energy generated than a coal-fired power station. Electricity-only incinerators produce about twice as much carbon dioxide per kWh as coal fired power stations. If only fossil-fuel derived CO2 is considered, an electricity-only incinerator produces around 33% more CO2 than a gas-fired power station. This has serious climate change implications, and suggests that the proposals do not represent Best Available Technology, and that any permit issued by the EA would be open to legal challenge on the grounds of non-compliance with the Waste Incineration Directive (WID). This is a material planning consideration.

Figure 3: Includes CO_2 from Biogenic Carbon, Heat=0.4 x Electricity



A changing climate for Energy from Waste?. Eunomia research and consulting. Dr Dominic Hogg

PAIN believes that all of the points outlined above should be addressed by the applicant and the Planning Authority. PAIN objects to the application on the grounds that it does not accord with the Key Planning Objectives set out in PPS 1 (Supplement), and does not adequately address a host of additional related concerns.

Pollution to water

PAIN has serious concerns regarding the prospect of irreversible damage befalling the aquifer and the potential contamination of ground water and fisheries. Veolia's proposals are not sufficiently detailed to properly assess these risks, and they offer little by way of information to assess whether or not their proposed mitigations will be sufficient to ensure water safety for the next 25 - 50 years.

The proposed site is located on a sensitive aquifer, separated only by highly porous bunter sandstone, and mitigations (including plans for water soakaways) appear inadequate to safeguard both deep and surface water quality. "6.33 An assessment of the infiltration potential at the site was undertaken insitu and these results confirm a high infiltration potential." and "6.42 The proposed site lies directly over a sandstone with a high permeability to water, recognised regionally as an important source of drinking water". It should be noted that hazardous chemicals used for flue cleaning are to be stored on the site, and fuel oil is to be stored underground.

The proposed site is very near ground water and immediately above an aquifer. The sandstone is highly porous. There are various water pumping stations nearby, as well as recreational and commercial fisheries. PAIN is concerned about the prospect of contaminants entering either the ground water or the aquifer. For various reasons it is inevitable that toxic substances would be stored on the site, and we are aware that proximity to an aquifer was the reason the proposed Doncaster incinerator was rejected.

When Leigh Environmental proposed building a waste incinerator at Kirk Sandall near Doncaster in 1991, the initial refusal for planning permission was confirmed by the Secretary of State on appeal [The ENDS Report 202, November 1991] primarily because the proposed incinerator site lay above an aquifer of major local importance, from which three boreholes abstracted water. Although extensive measures were proposed to prevent contamination of the aquifer, the technology was not proven in the combination suggested, and long-term integrity of the protective membranes could not be guaranteed.

The Environment Secretary concluded that there would always be some risk of the protective systems failing, and no matter how small that risk was, it was sufficient reason to reject the application. In summarising, the inspector concluded that the incinerator was likely to cause demonstrable harm to important interests including the local populace, groundwater users and local food processors. The summary criticised Leigh's site selection procedure, arguing that a "precautionary" approach should be used. Leigh had failed to demonstrate that no better sites were available, or that there were any strong locational arguments in favour of the proposed site.

PAIN notes that under the Environment Agency's Policy and Practice for Protection of Groundwater the site is designated as Major Aquifer. "These are highly permeable formations usually with a known or probable presence of significant fracturing. They may be highly productive and able to support large abstractions for public supply and other purposes…"

It continues: “The soil has been classified as H3, H indicates that the soils are of High Leaching Potential, which have little ability to attenuate diffuse source pollutants and in which non-absorbed diffuse source pollutants and liquid discharges have the potential to move rapidly to underlying strata or to shallow ground-water. Subcategory H3 includes course, textured or moderately shallow soils that readily transmit non-absorbed pollutants …Groundwater has a substantial strategic significance in public water supply providing around 35% of present demands. It is also used to provide supplies for private abstractors who cannot obtain, or prefer not to use water from the public mains…”

In order to minimise the environmental and human impact from emissions of pollutants to water, a suitable site should meet the following criteria:

1. Not located above a groundwater aquifer
2. If above an aquifer (which is not recommended), the underlying layers should be impermeable
3. If above an aquifer (which is not recommended), the underlying rocks must be impermeable and free from faults, shafts, bore-holes and the risk of instability (over the period of operation)
4. Not located near important surface waters that support ecosystems sensitive to pollution
5. Not located near important surface waters that provide pathways to public water resources (reservoirs and groundwater).

The following is an indicative list of the main polluting substances to water to be taken into account for fixing Environmental Limit Values:
• Organohalogen compounds and substances, which may form such compounds in the aquatic environment
• Organophosphorus compounds
• Organotin compounds
• Persistent hydrocarbons and persistent and bioaccumulable organic
• Substances and preparations which have been proved to possess carcinogenic or mutagenic properties or properties which may affect reproduction in or via the aquatic environment (including dioxins - see Somers, C. M. , McCarry, B. E. , Malek, F. & Quin*n, J. S*. Science 304, 1008–1010 (2004). Somers, *C.M. et al. Proc. Natl Acad. Sci*. USA 99, 15904-15907 (2002) and Yauk, C. *et al. Proc. Natl Acad. Sci. US*A 105, 605-610 (2008) for evidence that dioxins cause sperm mutation, as described in Nature Magazine 10.1038/news.2008.439; published on 3 January 2008.)
Toxicological substances
• Cyanides
• Metals and their compounds
• Arsenic and its compounds
• Biocides and plant health products
• Materials in suspension
• Substances, which contribute to eutrophication (e.g. nitrates, phosphates)
• Substances, which have an unfavourable influence on the oxygen balance (and which can be measured using parameters such as BOD, COD, etc)

PAIN objects to the application on the grounds that a more cautious approach to protecting water safety should be adopted.

Site status

The application misleadingly uses the phrase 'brown field in character' and claims that coal stocking is ongoing. PAIN understands that the site is classed as greenfield (due to restoration condition) and that coal stocking and blending activities ceased sometime between June - October 2007. As the old Rufford Colliery car park and environs is subject to a restoration condition to restore the site to heathland and woodland, it is therefore classed as a greenfield site. In planning terms, we need to treat the site as if it were already heathland and woodland. The site is not earmarked for regeneration in the Local Plan. The planning application seeks to depart from Newark & Sherwood District Council's Local Plan. A better reason for the choice of a greenfield site will have to be advanced, apart from the fact the owners were prepared to sell.

Page 26 of Planning Policy Statement 3 states that the definition of "Previously-developed land (often referred to as brownfield land)" excludes "Land that has been developed for minerals extraction or waste disposal by landfill purposes where provision for restoration has been made through development control procedures" and page 9 of the Land Use Change Statistics (LUCS) Guidance clearly states: "…previously-developed land relates to minerals and waste sites that are to remain unrestored after use because the planning permission allowing them did not include a restoration condition. All other such sites will be restored to 'greenfield' status, by virtue of the planning condition".

PAIN calls your attention to these conditions:

NOTICE OF PLANNING PERMISSION Planning No: 3/95/1289
TOWN AND COUNTRY PLANNING ACT 1990

THE NOTTINGHAMSHIRE COUNTY COUNCIL having considered an application by or on behalf of R J B Mining (UK) Ltd to Stocking/Blending and Distribution of Coal on/at Rufford Stocking Site, Rainworth as shown on the plans submitted with the application, which application and plans and any relevant correspondence are hereinafter referred to as "the application" hereby in pursuance of their powers under the above mentioned Act **GRANT PERMISSION** for the development in accordance with the application, subject to compliance with the Conditions imposed and for the reasons set out below.

Conditions: ATTENTION IS DRAWN TO THE CONDITIONS PRINTED OVERLEAF AS TO THE DURATION OF PLANNING PERMISSIONS.

1. This permission relates to the use of land for stocking, blending and distribution of coal including the retention of the existing weighbridge, coal storage building and pad loading areas within the area edged red on Drawing No. 446/D01 submitted with the application and received by the Mineral Planning Authority (MPA) on 20 November 1995. All stocking and blending operations shall be carried out only within the areas defined by black dotted lines on the submitted Drawing and in Area A shown on that Drawing, and in accordance with the terms of this permission.
2. This permission shall be for a limited period only expiring on 24 April 2011 when the uses hereby permitted shall be discontinued and buildings removed unless a renewal of this permission has previously been granted by the MPA.

3. All stocked coal shall be removed from Area B as shown on Drawing No 4661 D01 submitted with the application within one year of the date of this permission.
4. No coal shall be stocked to a height in excess of 12 metres above the ground level of the application site…
5. Vehicular access to the site shall be only via the existing colliery road from the A617 Kirklington Road, Rainworth.
6. Movement of coal by lorry into or out of the site shall be restricted to 0600 to 1800 hours Mondays to Fridays and 0600 to 1400 hours on Saturdays unless modifications to working hours have previously been agreed by the CPA.
7. Best practicable means shall be taken to limit emissions of dust from the site for the benefit of the continuing enjoyment of neighbouring land owners and occupiers. This shall include taking all or any of the following steps as appropriate:
(a) the use of water bowsers or sprinkler systems to dampen the operational areas and haul roads;
(b) the use of wheel washing facilities for all lorries leaving the site;
(c) the use of road sweepers along access roads.
8. Best practicable means shall be taken to ensure that noise from the operations is minimised. All plant and machinery shall be silenced at all times in accordance with the manufacturers' recommendations and reversing alarms on mobile plant operating on the site shall be fitted to be of the "low frequency" type.
9. Any facilities for the storage of oils, fuels or chemicals shall be sited on impervious bases and surrounded by impervious bund walls. The size of the bunded compound should be at least equivalent to the capacity of the tank plus 10%. If there is multiple tankage, the compound should be at least equivalent to the capacity of the largest tank plus 10%. All filling points, vents and sight glasses must be located within the bund. There must be no drain through the bund floor or walls.
10. There shall be no discharge of trade effluent, sewage effluent or contaminated drainage from the site into any ditch or watercourse.
11. The public bridleway along Inkersall Lane within the boundary of the site shall be maintained at all times free of obstruction with a surface suitable for the safe passage of horses and pedestrians to the satisfaction of the MPA.

<u>Restoration</u>
[Note: Reasons given for 12 - 21: “To facilitate the comprehensive restoration of the site including the proper use and treatment of soils and drainage arrangements”.]
12. Within 6 months of the date of this permission, operations shall commence on the Spring Hill Site shown hatched yellow on the submitted Drawing to restore it to heathland in accordance with the details set out in Page 21 of the statement accompanying the application.
13. Within six months of the expiration of this permission or the cessation of the use of any part of the site for stocking, blending or distribution of coal, whichever is the sooner, a restoration plan for the whole site shall be submitted to for prior approval by the MPA.

14. The site shall be restored primarily to woodland and heathland within one year of the approval of the scheme referred to in Condition 13 above in accordance with that scheme and in accordance with Conditions 15-21 below, unless otherwise agreed in writing by the MPA.
15. All coal and surfacing materials shall be removed from the site and the underlying sand ripped to relieve compaction.
16. Soils shall be placed above the ripped area to a total depth of not less than 300m (sic) on those areas proposed for restoration to heathland, and not less than 800mm on those areas proposed for restoration to tree planting and according to the following specification:
(a) a drainage layer of coarse material spread to a depth of between 100mm and 200mm; and
(b) soil or soil-making materials spread above the drainage layer referred to in (a).
17. Prior to subsoiling, soiling and cultivation an adequate number of samples of restoration materials shall be analysed in sequence to assess fertiliser, lime and other ameliorants required to promote appropriate heathland and woodland restoration.
18. The result of the analyses referred to in Condition 17 above shall be supplied to the MPA and details of treatment, seed mixture and rate of application to be carried out in sequence shall be approved in writing by the MPA prior to their application.
19. Upon approval of the details referred to in Condition 18 the areas to be restored shall be sown with seed in accordance with the approved details in the first available sowing season following the spreading of soils.
20. If on any part of the restored area satisfactory plant growth is not obtained as a result of the initial sowing, such parts shall be cultivated and re-seeded after correction of any nutrient deficiency or toxicities during the sowing season. This work shall be repeated until the vegetation cover is established to the satisfaction of the MPA.
21. Tree and shrub planting shall be carried out in accordance with the scheme approved in Condition 13 above, and in accordance with details or species, planting height numbers and spacing of trees and hedgerows to be submitted to for approval by the MPA prior to their planting.

Aftercare
[Note: Reasons given for 22 - 24: “To bring the land to the required standard for amenity / forestry use”.]
22. Not less than 3 months prior to compliance with Conditions 12 and 14-21 above an aftercare scheme for the first five years following restoration of any part of the site shall be submitted to, for approval by, the MPA. Such a scheme shall specify the steps which may be required to bring the land to the required standard for woodland and heathland purposes. These steps will include the following:
(a) cultivations;
(b) sowing of seed mixtures;
(c) control of invasive species;
(d) analysis of restoration materials to assess nutrient levels and physical properties;
(e) measures to correct deficiencies or problems identified in (d) above;
(f) installation of drainage;
(g) management practices such as vegetation cutting;

(h) erection and maintenance of fences;
(i) keeping of records and an annual review of performance and proposed operations for the coming year, to be submitted between 31 October and 31 December of each year.
23. An annual review of performance of the tree planted areas shall be undertaken, and the results submitted to the MPA before 31 December of each year following the date of commencement. This review shall include a survey of ground levels across the site and include records of replacement trees and management proposals for the coming year.
24. Should the results of the review referred to in Condition 23 above indicate that the plans approved in accordance with Condition 13 above have not been adhered to, the CPA may require, by written request, a revised phasing and restoration scheme. This scheme shall be submitted to, for approval by, the CPA within 3 months of the written request being made.

Signed on behalf of Nottinghamshire County Council Director of Planning & Economic Development by Neil Hunt

Excerpt from Pages 21 - 23 of The Statement to Accompany Planning application for Continued Coal Stocking and Blending Operations at Rufford Colliery, Nottinghamshire Application Number CMA951289 submitted by RJB Mining (UK) Ltd. 27th November 1995

12. Site Restoration
12.1 Greenwood Community Forest
The application site lies within the Greenwood Community Forest area in which an initiative was set up in 1991 to increase the coverage of woodland in Nottinghamshire. This is being undertaken by creating a rich mosaic of habitats and productive land uses within a predominantly wooded landscape. The Forest will encompasses farmland, villages and other settlements a myriad of wildlife habitats, public open spaces and both commercial and amenity forestry.
12.2 The Rufford site is identified as being within the northern sandlands area of the Community Forest in which remnant heathland habitats are characteristic. The proposals for this area include “identifying opportunities to manage and create areas of heathland with scattered oak and birch.”
12.3 It is therefore proposed to establish an area of heathland on the Spring Hill site.
12.4 The restoration of the overall Rufford site, including the tip area, will be undertaken progressively depending on the future operational requirements. As previously mentioned the Spring Hill area is being restored to safeguard the adjacent SSSI.
12.5 It is proposed to try and establish a lowland acid heathland type community on this 7.5 ha area which will ultimately provide a continuation of the ecological interest on the adjacent land. This type of habitat is native to the acid soils of the coal measures, shown by the regeneration of heathland type communities on soils already stripped and stored on the site.
The restoration of the Spring Hill will involve:
a) Removal of remaining coal on-site by scraped to expose underlying sand layer.
b) Scarification of the surface left by stocking operations to relieve compaction produced by excess trafficking.

c) Respreading of soils stored around the Spring Hill area containing regenerated heathland vegetation and thus a seedback of appropriate indigenous species.
d) Grading down of the storage bund adjacent to existing SSSI to retain part of the heathland community already regenerated on this area of the site.

12.6 Future Management of Restored area

It is the Company's intention that once successful reinstatement of the heathland is underway on the Spring Hill site the land could be transferred to an appropriate body to be managed in the long term in conjunction with the existing heathland area.

12.7 Restoration of the Remainder of the Site

It is intended that the remainder of the site will be restored to a heathland and oak-birch woodland once the coal stocking operations have ceased. It is not possible to set out an accurate timescale for the final reinstatement as the operational lifespan of Rufford is dependent on other operations.

12.8 The company is currently discussing the overall restoration strategy for the Rufford site, including the tip areas, with the Count Council and the Nottinghamshire Wildlife Trust. the Trust manage the adjacent Rainworth Heath SSSI and have extensive experience of heathland sites.

12.9 The materials in the tip are predominantly acidic in nature with varying degrees of porosity from water-logged to free-draining. This provides opportunity to try to recreate a mosaic of vegetation communities indigenous to the Sherwood Forest Natural Area with its unique ecology. The creation of lowland heath and areas of oak-birch woodlands concords with the aims of not only the County's Lowland Heath Strategy, but also the strategies of the Greenwood Community Forest and the Sherwood Initiative.

12.10 Whilst it is clear that "woodlands" and "heathlands" cannot be instantly created, the principal component species of the communities can be established. Time and appropriate management will then encourage natural colonisation by a greater diversity of species.

12.11 Given the location of Rufford on the coal measures and Bunter sandstone the following communities are appropriate.

12.12 Rainworth Heath SSI is mainly a Ling (*Calluna vulgaris*) dominated heatlhand with a significant component of wavy hair grass (*Deschampsia flexuosa*) and sheeps fescue (*Festuca ovina*), in accordance with the NVC H9. The sand available form the adjacent quarry will be spread over this area, to create suitable conditions. Scattered clumps of gorse (*Ulex europaeus*) and Broom (*Cystisus scoparius*) will be planted to increase the structural and species diversity. In the less permeable areas where the substrate will lie wet for part of the year, the cross-leaved heath (*Erica tetralix*) community (M16) will be appropriate.

12.13 This vegetation is dominated by cross-leaved heat in association *Ling* and purple moor grass (*Molinia caerulea*). Although *Sphagnum compactum* is also a significant member, it may not be possible to establish this at an early stage. This community is rare and fragmented in Nottinghamshire due to land use and management changes. It is particularly important that it is conserved and extended where possible. Small areas of such wet heath are present on Rainworth Heat SSSI, unusually in association with M25 *Molinia caerulea - Potentilla erecta mire*. The degree of waste-logging and slightly anaerobic conditions present on parts of the tip will aid natural colonisation by such mire pecies and possibly a degree of bog formation in the long term.

12.14 Areas of acidic grassland will be second to compliment the heathland mosaic, these will also increase the potential for management of the land by extensive grazing in the long term. The semi-natural grassianas in the area generally fall into the U1 and U2 NVC communities and are often transitional between the two. Thus sheeps fescue (*Festuca ovina*), common bent (*Agrostis capillaries*) and wavy hair grass (*Deschampsia flexuosa)* are appropriate dominant species that can be sown with a mixture of other indigenous grasses and herbs appropriate for the conditions. Where possible, seed used for heath and grassland will be locally sourced.
12.15 There is potential to create broadleaved woodland that will develop to compliment the surrounding Sherwood Forest. The free-draining, acidic slopes of the spoil are difficult conditions for many trees, hence a simple plantation based on the oak-birch (*Quercus spp - Betula spp*) W16 NVC community would be appropriate. Sherwood Forest is notable both in a National and European context for its sessile oaks *(Quercus pctracd)* of great age and their associated invertebrate populations, hence the use of seed stock from the unique woodlands around would be important for this restoration. Other sub-dominant species such as rowan *(Sorbus aucuparia}* and downy birch *(Betula pubescens)* can also be locally sourced.
12.16 In summary, this restoration proposal has been designed to make most effective use of available substrate materials to create a landscape that is appropriate in ecological, cultural and land use terms. The habitats of the Sherwood Forest Natural Area are unusual and in some cases unique and should be conserved and enhanced. The restoration strategy for Rufford offers an opportunity to extend these valuable communities and to create diversity of both species and habitats on land that has been degraded for many years.

PAIN understands that the site is described as the missing piece of the planned Sherwood Forest Regional Park. Veolia's planning application acknowledges that if an incinerator is built the site would no longer be included in these plans, and there could be wider implications that are considered of regional, national and even international significance.

PAIN objects to the application on the grounds a greenfield site is not suitable for the development proposed.

Nature Conservation

PAIN does not feel that adequate attention has been given to the application's potential negative impacts on local nature habitats and biodiversity. A proper account has not been taken regarding birds (including woodlark, nightjar, willow warbler, meadow pipit, skylark, green woodpecker and little ringed plover), grass snakes, frogs, lizards, bats, moths, chiff chaff, dingy skipper, and purple moor grass. PAIN has been supplied with evidence of these species relying on the proposed site, but we have seen little recognition of this in Veolia's applications.

Sherwood Heath LNR is 23ha SSSI. This fantastic area is a remnant of the ancient Sherwood Forest, with a wide range of habitats including ancient heathland, scrub, acid grassland and broad-leaved woodland. Wildlife often encountered includes green woodpeckers, common lizards, small copper and meadow brown butterflies. Rainworth Water proposed LNR is 21ha and part SINC. The site is part of the former Rufford Colliery, much of which has now been restored to a mixture of woodland, grassland and heathland. The proposed LNR has been described as "the Nottinghamshire Dales", as the site itself is a steep sided "bowl" with Rainworth Water running along the bottom.

Sheila Wright (Zoologist, Nottingham Natural History Museum and Notts larger moth recorder) and several other moth specialists recorded the Beautiful Brocade and Beautiful Yellow Underwing on the Notts Wildlife Trust nature reserve part of the heath. Moths recorded on the Heath in 2005 include a number of conservation importance within Notts, either because they are either scarce or local in their national distribution, or in their distribution within Nottinghamshire.

Beautiful Brocade - Scarce in Notts. Feeds on heather, birch, oak and bracken. Prior to 2005, had not been recorded on Rainworth Heath for 11 years and the county for 9 years - but this was probably because no-one had looked for it. Appears to be confined to Notts heathlands and woodlands on the Sherwood sandstone.

Angle-striped Sallow - widespread in Notts, classed as Nationally Scarce. Feeds as a larva on birch growing on heathlands and in woodlands. Fairly rare outside the East Midlands.

Beautiful Yellow Underwing - local in Notts, as confined to heathlands. Foodplant is heather.

Map-winged Swift - Patchily distributed nationally and in Notts.

Small Elephant Hawk-moth - found on heath/acid grasslands where heath bedstraw grows.

Pine Hawk-moth - was local both nationally and in Notts, Feeds on pine and some conifers.

Bird's Wing - once very local in the county. Feeds on dock and sorrel.

Plain Wave - Local in Notts and nationally, but probably under-recorded due to confusion with similar species. Feeds on dandelion and knotgrass.

Scorched Wing - Nationally rare, but common in Notts. Feeds on oak, birch and sallow.

In addition, we have older records for two other species - Clouded Buff and Grass Wave. Both are local both nationally and within Notts - being confined to our heathlands. Foodlplant heather in both cases, the latter also feeds as a larva on broom and gorse.

Rainworth Heath qualifies as a SINC (Site of Importance for Nature Conservation) on its moth interest alone, by virtue of being a site for a number of specialist heathland species which are thinly distributed within Notts due to the scarcity of good heathland habitat.

PAIN notes that "Rainworth Water is located within the Sherwood Natural Area and the Greenwood Community Forest. Historically, Sherwood Forest consisted of oak and birch woodland, lowland heathland, acid grassland and wetlands. The site is in a prime location to reduce fragmentation of these ancient habitats and is in close proximity to several important sites eg Rainworth Heath SSSI, Rainworth Cutting SINC and Rainworth Gorse SINC. Management of the site will therefore focus on developing these characteristic Sherwood habitats where appropriate. Active community involvement will be prioritised to support the development of the site as part of Greenwood, Nottinghamshire's Community Forest…***Any future legal agreements will only be granted on the basis that they would not unnecessarily or unreasonably adversely affect the nature conservation value of the site***".

Sherwood Forest is one of the most famous forests in the world. It is located at the heart of the United Kingdom between the major conurbations of Nottingham and Sheffield. Its association with the legend of Robin Hood places it firmly in the hearts and minds of the British public and those abroad. However, the Forest is no longer the majestic expanse of woodland and heathland that it once was; it is now fragmented and underutilised. The Forest has enormous potential and the long-standing vision is restoration, enhancement and protection of this inspirational community resource.

The Living Legend Lottery bid's stated intention "to transform Sherwood Forest into a world-class sustainable destination and inspirational community resource, within which current and future generations can live, learn, play and prosper" complements wider ambitions for a Sherwood Forest Regional Park, creating a step-change in environmental quality, community aspiration and economic regeneration. The Park plan is described as "a 50-year vision for the Forest that will restore its environmental abundance - combining the best of old and new".

The Regional Biodiversity Strategy, Putting Wildlife Back on the Map: A Biodiversity Strategy for the East Midlands Adopted by East Midlands Biodiversity Forum & East Midlands Regional Assembly (May 2006), states that, for the last couple of decades, a multitude of new projects have attempted to enhance the Region's bio-diversity. However, the legacy of long term declines means that the region has to find a way to restore its biodiversity starting from a very low threshold. Based on a set of widely accepted indicators, such as the number of and coverage of protected sites and the region's high placement in the National Plant Extinction Table, the region has the poorest biodiversity in the country. Wildlife habitats have been lost and those that remain are often small and fragmented. In addition, a number of species have been driven to extinction and many others are endangered.

A strategic approach and concerted effort are required for the decline in the region's biodiversity to be halted and turned into net gain. This approach must encompass a range of actions, beginning with protection, conservation and favourable management of existing local, national and internationally designated sites. Policy 28 of the RSS clearly establishes that the first priority for conserving and enhancing biodiversity in the East Midlands is to protect our existing resources, particularly nationally and internationally designated sites, and those natural habitats that are irreplaceable. These sites will provide part of the 'reservoir' of biodiversity needed to enhance these sites, and restore and create new wildlife habitats. In the wider countryside and urban areas, the needs of biodiversity must be built into land management and funding programmes and planning decisions. All this needs to be monitored effectively and a better understanding of the valued of biodiversity to the regional economy and people also needs to be fostered.

The Integrated Regional Strategy (IRS), as the sustainable development framework for the East Midlands, defines the key objectives for the environment as:
• To protect, improve and manage the rich diversity of the natural, cultural and built environmental and archaeological assets of the region.
• To manage change by enhancing and conserving the environmental quality of the region including high standards of design and to maximise the re-use of previously used land and buildings.
• To manage the natural resources of the region including water, air quality and minerals in a prudent manner and to seek to minimise waste and to encourage re-use and recycling of waste materials.
• To involve people, through changes to lifestyles and activities in minimising adverse local, regional and global environmental impacts.

The spatial component is also addressed by Regional Spatial Strategy for the East Midlands (RSS8). RSS8 identifies three key challenges at regional level which are of equal importance. These are:

- The significant decline in biodiversity and linked to this the relatively small number of statutorily designated sites important for biodiversity.
- The erosion in landscape character.
- The need to address the consequences of climate change.

Policy 2/2, Special Areas of Conservation, states: *Development which may affect a Special Area of Conservation… will be subject to the most rigorous examination. Development that is not directly connected with or necessary to the management of the site for nature conservation, which is likely to have a significant effect on the site (either individually or in combination with other plans or projects) and where it cannot be ascertained that it would not adversely affect the integrity of the site, will not be permitted unless:*
(a) there is no alternative solution; and
(b) there are imperative reasons of overriding public interest

Where the site hosts a priority natural habitat and/or a priority species, development will not be permitted unless the authority is also satisfied that it is necessary for reasons of human health or public safety or for beneficial consequences of primary importance for the environment.

Where planning permission is granted compensatory measures will be secured either as part of the proposed development or through the imposition of conditions and/or negotiation of planning obligations.

There is a strong presumption in favour of protecting, against harmful development, nature conservation sites which are designated as being of international importance. Regulations 48 to 53 of the 'Conservation of Natural Habitats and Wild Fauna and Flora Regulations' (Habitats Regulations), 1994 set out a strict series of tests which must be complied with before development which may adversely affect such sites can be granted planning permission. This is reflected in Policy 2/2.

Policy 2/3, Sites of Special Scientific Interest, states: *Development in or likely to affect Sites of Special Scientific Interest will be subject to special scrutiny. Where such development may have an adverse effect, either directly, or indirectly, on the special interest of the site, planning permission will not be granted unless the reasons for the development clearly outweigh the nature conservation value of the site itself and the national policy to safeguard such sites.*

Where planning permission is granted, conditions will be used and/or planning obligations will be sought to provide appropriate mitigation and compensation measures.

There is a strong presumption against development, unless an overriding need for the development can be demonstrated, or conditions can be imposed to prevent damage to the interest of the SSSI. The introduction of the Countryside and Rights of Way Act 2000 (CROW) further strengthened the protection given to SSSIs and the powers of English Nature (now Natural England). Part of this protection was the amendment to the Wildlife and Countryside Act 1981 that now requires public bodies (including planning authorities) to take reasonable steps to further the conservation and enhancement of the features for which a SSSI is designated (Section 28G).

Policy NE1 (Development in the Countryside) states:
"Planning permission will not be granted for development in the countryside. Exceptions, which will be assessed against the provisions of Policies DD1-6, may be made for:

1. *Agriculture, forestry and associated activities which contribute to diversifying the rural economy consistent with Policies NE6 or S14;*
2. *Appropriate recreation and tourist uses consistent with Policies R23 or TO1.*
3. *Utility installations requiring a rural location;*
4. *Changes of use of rural buildings to uses consistent with Policy NE2;*
5. *Roadside services consistent with Policy T22;*
6. *Dwellings for agricultural or forestry workers which comply with Policy H28."*

Policy NE7 (Protection of the Countryside) states: "*The visual quality and amenity of the countryside will be conserved and enhanced. In particular the Local Authority will seek to:*

1. *Protect the countryside for its own sake;*
2. *Ensure the retention and management of important and historic landscape features such as woodlands, meadows, trees, hedgerows, wetlands, ponds, lowland heaths and geologically important sites;*
3. *Ensure high standards of design for development in the countryside;*
4. *Secure planting and other landscape enhancement schemes including, where appropriate, the replacement or relocation of existing important landscape features which would otherwise be lost as a result of development.*
5. *Reclaim wasteland and derelict areas unless they are designated nature conservation or earth science sites considered by the District Council to be of important ecological or geological value;*

Two specific policies relate to much of the Sherwood Forest area:

- The Special Landscape Area is considered to have landscape and ecological importance. It also includes pockets of land of little aesthetic or ecological value, often having been scarred by mining and the tipping of waste.

The District Council will encourage the enhancement of these areas, in accordance with the Plan's aim to promote nature conservation and tourism.

- The Heritage Area lies at the heart of Sherwood Forest and has enormous ecological and historic significance. It contains remnants of ancient oak woodland and heath that once typified Sherwood Forest. The best examples of this habitat are found at Sherwood Country Park, part of the Birklands and Bilhaugh SSSI (now part of the SAC). The District Council will seek to protect this area from any development, including proposals for recreation and tourism that would have a detrimental impact on its wildlife, landscape and historic interest. This policy does not seek to unnecessarily restrict development within the Heritage Area, but to acknowledge both its special value and fragility.

Policy NE9 (Sherwood Forest Special Landscape Area) states: *"Planning permission will be granted for appropriate development within the Sherwood Forest Special Landscape Area, defined on the Proposals Map, provided the proposal would conserve and enhance the landscape and ecology of the area, and maintains its function as a recreation and tourist area."*

Policy NE10 (Sherwood Forest Heritage Area) states: Planning permission will not be granted for development in the Sherwood Forest Heritage Area, defined on the Proposals Map, where it would have an adverse effect on its ecology or environment.

Policy NE11 (Birklands and Bilhaugh Candidate Special Area of Conservation (SAC)) states: *"Proposals for development or land use change which may affect the Birklands and Bilhaugh candidate SAC or other European sites will be subject to the most rigorous examination. Development or land use change not directly connected with or necessary to the management of the land and which is likely to have significant effects on the site (either individually or in*

combination with other plans or projects) will not be permitted unless the authority is satisfied that:

(i) There is no alternative solution; and

(ii) There are imperative reasons of over-riding public interest for the development or land use change."

Policy NE12 (Sites of National Nature Conservation Importance) states: *"Proposals for development in or likely to affect Sites of Special Scientific Interest (SSI) will be subject to special scrutiny. Where a proposed development would adversely affect a SSSI, directly or indirectly, it will not be* permitted *unless the reasons for the development clearly outweigh the value of the SSSI itself and the national policy to safeguard the intrinsic nature conservation value of the national network of such sites."*

The District Council regards ancient woodland as an important element of the District's critical natural capital. It will seek to protect all ancient woodland from development.

Policy NE20 (Ancient Woodland) states: *Planning permission will not be granted for development which would result in any loss or damage to an area of ancient woodland, defined on the Proposals Map.*

The Region's Space for Trees, Space4trees: The Regional Forestry Framework for the East Midlands EMRA strategy includes the following:

Environmental Objectives

1) The character and quality of the region's environmental resources better understood and conserved, protected and enhanced by a landscape scale approach to woodland management, tree planting and woodland creation.

Trees and woodlands are an intrinsic element of many of our most important and valued landscapes and habitats. However the region has suffered widespread, long term damage to the health and diversity of its natural environment and the pressures of conflicting land use, development and post war agricultural and forestry practices have had a major impact on many of the trees, woodlands and on other habitats and species.

Ancient woodlands and veteran trees are amongst the region's most valuable wildlife features, supporting many species of conservation concern. Never the less, they continue to face many threats from ecological isolation to climate change. In parts of the region, woodland has been created on sites that had supported other habitats such as lowland heath, which have become increasingly rare and threatened. Despite the region's low level of woodland cover, it is therefore important to recognise the need for removal or restructuring of some woodland to allow the re-establishment of valuable non woodland and open habitats where this is sustainable at a landscape scale.

The role of trees and woodlands in the landscape, ecology and history of each part of the region is distinctive and not all landscapes or natural areas are characterised by the presence of woodland cover. Landscape, ecological and historic character assessments are therefore an increasingly important tool to inform sub regional targets for new woodland creation and tree planting.

Regional targets for the restoration and creation of woodland habitat will need to be bold and should be based on a long term vision which goes beyond the life span of current regional strategic planning.

2) The ancient woodlands, veteran trees and other historic features such as parklands and wood pasture identified, protected, and sustainably managed.

Around half of ancient woodland sites currently support commercial plantations, mainly of non native conifers. Many of these sites retain features and characteristics of native woodland that are lying dormant and that can be progressively restored. However, as time passes these features become more faint and, in many cases, it is in the woods where there seems little to save that there may be the greatest urgency to act.

Many ancient woodland, wood pasture and parkland sites contain important historic and archaeological features, from burial mounds to wood banks, and can provide them with a high degree of protection from damage or disturbance. They may also contain veteran trees which, in contrast, may be under considerable pressure because of the competition of surrounding vegetation. Even where only fallen trees and stumps remain, they may be of immense ecological importance supporting whole communities of plants and animals that are absent from surrounding woodland.

Little is known about many of these sites and features, particularly in terms of their condition or management requirements. The provisional inventory of parkland and wood pasture for the region lists three hundred and fourteen known sites covering over thirty two thousand hectares, a significant proportion of the national resource. However, very few of these sites have been surveyed in detail.

The Ancient Tree Forum and the Woodland Trust are developing a database of ancient and veteran trees because so little is known about their status or distribution and in 2000/01 Forest Enterprise undertook a major desk and field survey of its estate to identify ancient woodland sites and features. Further research and survey initiatives and the systematic collection and analysis of data at a regional or sub regional scale are essential to the protection and maintenance of historic woodland resources.

The re-connection of isolated fragments of semi-natural habitat and the increase in size of core woodland areas will create more ecologically functional wooded landscapes and habitat networks. These will be better able to withstand external environmental pressures from land use and climate change and thus ensure their continued contribution to the regional biodiversity, landscape character, and cultural heritage. The protection, restoration and improvement of ancient woodlands and planted ancient woodland sites at a landscape scale are essential for the delivery of biodiversity action plan targets for woodland and associated habitats and species.

National and regional initiatives such as The National Forest and the Greenwood Community Forest have proven themselves as highly successful, cost effective and sustainable vehicles to promote economic and social, as well as environmental regeneration.

Sherwood Forest is a Biodiversity Conservation Area and the Coalfields are Biodiversity Enhancement Areas (BEAs), as identified by the Regional Biodiversity Forum. These are seen as essential components of the region's spatial strategy In BEAs, biodiversity is exceptionally poor or there are regionally significant opportunities to reverse biodiversity losses. They warrant habitat creation and/or restoration on a larger scale than has previously been adopted and are recognised as being a focus for funding and partnership working.

PAIN believes that policies outlined above that apply to the remnant of the Ancient Sherwood Forest apply to the old Rufford Colliery site, and that irreparable damage is likely to arise if planning permission is granted for Veolia's waste incinerator application. PAIN objects to the application on the grounds that the risk posed to nature conservation is unacceptable, and that Sherwood Forest is unsuitable for the development proposed.

Non-compliance with other policies

The January 2006 Regional Waste Strategy cites "realworld deliverability" considerations (especially the length of time required for the process of planning and building waste incinerators) as a reason why the East Midlands is looking to other ways to deal with waste. "…*the Regional Spatial Strategy should be based on a revised scenario: to reduce waste arisings working towards zero growth in waste from 2016* [something Mansfield has achieved already]*, to exceed government targets for recycling and composting and take a flexible approach to other forms of waste recovery* [e.g. anaerobic digestion]*...on the basis that technology in this area is developing very quickly and is difficult to predict over a 20 year period".*

Veolia's proposals also go against Mansfield District Council's emerging Green infrastructure Plans.

DIRECTIVE 2006/12/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 5 April 2006 on waste includes the following:
Article 4
1. Member States shall take the necessary measures to ensure that waste is recovered or disposed of without endangering human health and without using processes or methods which could harm the environment, and in particular:
(a) without risk to water, air or soil, or to plants or animals;
(b) without causing a nuisance through noise or odours;
(c) without adversely affecting the countryside or places of special interest.

PAIN does not believe that the applicant has given sufficient consideration to these policies.

Additional Concerns

Ground instability

Anecdotal and photographic evidence suggests there has been significant ground shifts in close proximity to the proposed site, including farmer King's fields, as well as at a moderate distance, such as the subsidence recently repaired in nearby Forest Town. Also, former mine workers report the presence of shafts, seams and tunnels located beneath the proposed site (e.g. along the Pit Lane into the car park).

Bottom Ash Safety

According to the Environment Agency's website, Gary Bower (the EA's Technical Advisor – Hazardous Waste), from 27 Oct 2006 the Environmental Services Association (ESA) facilitated an initiative to identify a protocol for the ecotoxicity testing of Incineration Bottom Ash (IBA) using a direct testing method on IBA.

The study showed that: "Almost certainly, zinc will be present in IBA, commonly as zinc oxide amongst other zinc substances. The recent revision to the Approved Supply List (ASL) (version 8) introduced an ecotoxic classification for zinc oxide (H14 by R50/53 Very toxic to aquatic organisms and may cause long term effects in the aquatic environment). The substance was not classified as ecotoxic in previous versions. The assessment of the H14 status of IBA has historically been dependent on the level of 'total' lead substances in the sample. However, the recent amendment to the ASL means that zinc substances need to be considered in addition to lead and other ecotoxic heavy metals. **Levels of lead and zinc in a number of isolated compliance monitoring samples have exceeded the hazardous waste threshold for H14**".

Further investigation revealed that about 12% of the bottom ash samples tested were found to be hazardous. Samples came from a wide range of incinerators, so there is a strong argument that each batch should be tested – or all the ash classified as hazardous waste. The relevant incinerators were: Wolverhampton; SELCHP; Edmonton; Coventry; Kirklees; Billingham and Dudley.

The EIA Scoping Report states that the bottom ash (IBA) is inert. This is not correct. Researchers take the opposite view - that IBA is non-inert and may be hazardous; it was their opinion that IBA contained much of the dioxins that were removed from the flue gas emitted from the stack. And what of the dangerous and hazardous Flue Gas Treatment residues?

The APC residues are cited as hazardous and so will require treatment and, as the document suggests, will be landfilled. With the huge reduction in hazardous landfills from around 245 to 15 in the UK, this may mean large distances travelled to landfill these wastes. Has this been factored into the Life Cycle Analysis for the plant with regard to emissions from these vehicle movements?

Ozone / smog

Emissions of air pollutants from cars, power stations, industry, properties, and the proposed waste incinerator can contribute directly, and indirectly, to the pollutant concentrations experienced in Sherwood Forest. These primary pollutants consist of nitrogen oxides, sulphur oxides, hydrocarbons, carbon dioxide, and others. The emission sources upwind of Sherwood Forest will influence the resulting pollutant concentrations experienced in Sherwood Forest. One of the prevailing wind directions in the UK is the south-westerly (wind blowing from SW to NE). In the case of the Major Oak, and Sherwood Forest visitor centre, all emission sources in the Mansfield/Newark and Sherwood area will have an influence on air quality, during days with south-westerly winds. Nitrogen oxides and sulphur oxides react in the atmosphere to form acids, which fall to the ground when it rains. Such acid rain can place additional stress on ecosystems and damage forests.

Nitrogen oxides, and hydrocarbons, can react under strong sunlight to form the secondary pollutants found in photochemical smog. This can form in rural areas, downwind of the (urban) emission sources. A chief component of photochemical smog is ozone (O_3). It is a strong oxidiser capable of damaging most biological systems, including plants. It is recognised that ozone has a significant role to play in crop damage and damage to forests. However, this relationship is a complex one, and research is still being conducted in this area to better understand the processes.

PAIN calls for a scientific study to be undertaken, prior to the granting of any planning permission, to estimate the impact of air pollution on Sherwood Forest. The following would be required for such a study: Emissions inventory for the area (all relevant current and *future* emission sources); Monitoring air pollutant concentrations (e.g. background levels); Modelling (Emissions, Dispersion, Reaction) to forecast pollutant concentrations; Knowledge of O3 impact on ancient oak woodlands; and knowledge of the state of health of ancient Sherwood Forest and the Major Oak, and the Parliament Oak in Clipstone Forest. Such a study requires a range of expertise and the collation of data across a number of surrounding districts.

In the case of ancient Sherwood / Clipstone Forest, which consists of oak trees up to several hundred years old, any additional environmental stress may have an adverse impact on the health and remaining lifetime of such trees. Given the regional, national, and international importance of ancient Sherwood Forest in terms of tourism, there is an argument for an effective environmental impact assessment of all future facilities in the area that emit significant quantities of these air pollutants. Incinerators produce large quantities of NOx and Government has long accepted (as in the new AQS) that NOx and VOCs are precursors of ozone. According to s.119: “Ozone will also remain an issue, and although it is more prevalent in rural areas…There is a small upward trend in background ozone levels in the UK, in common with rising hemispheric ozone levels...’summer smog’ episodes have decreased in response to policy measures...but…may even be reversed if climate change effects result in increased frequencies of hot summers like those of 2003 and 2006”. The Committee on the Medical Effects of Air Pollutants is uncertain if there is any threshold for ozone re: harming to human health; the AQS talks of AOT40 as the appropriate metric for damage to crops.

PM 2.5 and smaller (nano) particles
Who would measure, monitor and manage the widely recognised serious risks posed by <PM 2.5, fine and ultra fine particles, and nanoparticles? How can these be controlled if they escape through modern filtration systems?

Air quality
There is an error in that Veolia mix their units. The background level is in ug/l whereas other values are in ug/m3. 1 litre = 0.001 meters cubed. Assuming the SO2 values are correct and just their label is wrong then the background (current?) level for SO2 is 19 and ends up as PEC of 47.37 which means air quality becomes 2.49 times worse, or an increase in pollution by 149%.

Persistent Organic Pollutants
Persistent organic pollutants (POPs) include a range of pollutants that persist in the environment for many years. The list of POPs includes toxic dioxins, furans and PCBs. Such is the level of concern over POPs that several countries, including the UK, have signed up to the Stockholm Convention on Persistent Organic Pollutants. The aim of the convention is to *reduce and eliminate* the production of persistent organic pollutants.

The Dioxin, PCBs and Waste Working Group of IPEN (International Persistent Organic Pollutants Elimination Network) Report demonstrates that waste incineration residues represent a serious threat to both [the] local and global environment as they contain high quantities of unintentionally produced persistent organic pollutants listed under Annex C of the Stockholm Convention (dioxins, PCBs and hexachlorobenzene). This study also shows that, especially, waste incineration fly ash and APC residues contain also high levels of other Persistent Organic Pollutants not listed under [the] Stockholm Convention.

The European Community has signed both international instruments on POPs [EU Action on POPs]. The international community has called for actions to reduce and eliminate production, use and releases of these substances. To that end, two international legally binding instruments have been negotiated and concluded: The Protocol to the regional UNECE Convention on Long-Range Transboundary Air Pollution (CLRTAP) on POPs, opened for signatures in June 1998 and entered into force on 23 October 2003; The global Stockholm Convention on POPs, opened for signatures in May 2001 and entered into force on 17 May 2004. It includes provisions on the environmentally sound disposal of wastes containing POPs, and provisions on the reduction of emissions of unintentionally produced POPs (e.g. dioxins and furans). To a certain extent the Regulation goes further than the international agreements emphasising the aim to eliminate the production and use of the internationally recognised POPs.

Each Party to the Stockholm Convention - individual states as well the European Community as a regional economic integration organisation - has to establish an Implementation Plan to show the concrete action that will be taken against the POPs listed in the Convention. The European Community Implementation Plan, which will complement the national plans of the EU Member States, to be adopted by May 2006.

Waste incineration *produces* POPs, which are then emitted into the air and water, present in recycled bottom ash, and buried in landfill as bottom ash and fly ash. The total output to all media from a nation of waste incinerators would be significant. This poses the question whether a policy that leads to the creation of more waste incinerators, operating for up to 50 years, is: (a) legal; and (b) within the spirit of the Stockholm Convention?

Danger to human health

The Environment Select Committee notes: "concern about impacts of emissions from incinerators upon human health" cannot be assuaged or dismissed while "emissions standards are based on what can be *measured* and what is technologically achievable, rather than what is *safe*…Health effects which result from an incinerator's emissions are not yet fully known…Regulation of incineration to date has been rather poor and that this has resulted in poor practices developing in some incinerators..." [House of Commons (2001) *Delivering Sustainable Waste Management*].

Dr. Dick van Steenis MBBS provided People Against Incineration (PAIN) with research showing that "Incineration of waste causes a shortening of lifespan of up to 12 years, often in the prime of life, by increasing a range of diseases especially heart attacks and cancers". Dr van Steenis went on to highlight "a 20-year university-led study in Belgium detailed diseases and deaths caused, ending up with a 480% rise in cancer incidence on top of the country's rise". He asserted that, based on his research findings, and on the work of Mike Ryan, the proposed 75m chimneys would spread the damage some 17 miles, noting that: "Incineration of waste vaporises heavy metals making the particulates emitted even more lethal inhaled into your lungs. Emissions will consist of microscopic (PM2.5) particulates which mostly pass through the abatement equipment (filters) entering the deepest part of your lungs when inhaled...".

"Interaction of gasses and ultrafine particles from other PM2.5 emitting facilities in the area will form secondary PM2.5 particulates increasing the incinerator's devastating effects on health downwind. Wind direction, speed and temperature inversions are crucial factors. When you inhale PM2.5 particulates the soluble fraction gets into the bloodstream and your cells, while the insoluble fraction is partly dealt with by macrophages and T-lymphocytes with the remnants walled off in the lungs causing Chronic Obstructive Pulmonary Disease (COPD). The resultant inflammatory process can cause asthma and clinical depression. When in the cells, mutations will occur due to heavy metals, Poly-Aromatic Hydrocarbons (PAHs), dioxins, PCBs, and any radioactivity. Without adequate selenium in your blood to neutralise the metals, mutations from these substances will cause birth defects, cancers and altered gene function. In USA even 12 year olds had 20% loss of lung peak-flow due to PM2.5 induced COPD. Unlike USA, where PM2.5s have been rigorously monitored and regulated since 1997, in the UK only PM10s (PM10 down to PM4—none of which gets into your lungs) are measured using instruments that can be adjusted to minus (e.g. Brighton during June 2007 where PM2.5s read a fraudulent minus 107uG/m3. There is no adequate regulation in the UK to protect the public…"

Dr van Steenis argues that the range of illnesses caused by inhaling PM2.5 particulates from waste burning includes:

- Birth defects, low birth weight babies (in direct proportion to PM2.5 levels).
- Premature deaths of babies, infants and adults. e.g. In London the infant mortality in zones downwind of the incinerators is 7 times higher than in wards upwind. (9.0 cf 1.3/1000 --- ONS data 2003/5)
- T-lymphocyte diversion to lungs with depletion causes SIDS, cot deaths, autism, MS, GBS
- Attention deficit and other behaviour problems, some leading to crime.
- Lower IQ & educational achievement down 2 years, worse GCSE grades (due partly to PAHs)
- Asthma, COPD, viral & bacterial respiratory & other infections (especially boys)
- Coronary heart disease, heart attacks, arteriosclerosis, strokes, SADS.
- Diabetes type 2, (sometimes type 1). Endometriosis & other hormone disruption.
- Multiple chemical sensitivity with allergies & arthritis
- ME, CFS, Hypothyroidism with low T3 level (adding to obesity)
- Clinical depression & suicides, apathy, which increases the obesity problem.
- CANCERS: nonHodgkins lymphoma, brain, breast, colon, lung, prostate, kidney, liver etc
- Breast cancer for example can be caused by faulty genes (2%), HRT (5%) radiation, OP pesticides/herbicides, and from chimneys—cadmium, dioxins (& similar), & PAHs

“Analysis of 9 health parameters in Telford by ward in 2005 revealed increases in illnesses, SMR & age adjusted mortality in 7 polluted wards compared with 24 less polluted wards. An incinerator built in Colnbrook 1990 caused Slough SMR to worsen from 88 to 121 by 2001 meaning 11 years off lifespan…”

In light of Dr van Steenis’ findings, who will ensure the health of human beings and animals living within the 17-mile vicinity of the proposed facility?

Likely emissions

Many volatile organic compounds (VOC’s) are found in incinerator flue gas - and many more could not be recognized with the library in the mass spectrometer. Current regulation addresses those few chemicals for which there proof of harm, but such harm is likely to be the tip of the iceberg. There is a deeper level at which emerging harm can be identified but is not fully proven, despite clear warning signs. Below this, there are damages that occur with long latency periods, in which harmful exposure has occurred but the manifestation of the damage has yet to appear. And below this there are exposures that are doing harm but which will never be recognized due to the difficulties of detection. Chemical exposures proliferate much faster than their neurodevelopmental toxicities can be understood, the true dimensions of the toxic threat will always be underestimated by "currently available knowledge".

Incinerator emissions compared to cars

- Nitrogen dioxide emissions from each tonne of waste equate to driving about 8,000 km
- Nitrogen dioxide emissions from the proposed Rufford incinerator at the WID standards would be around 216 tonnes
- This is equivalent to the emissions from driving approximately 1,440 million km or 900 million miles!

Dioxins - only monitored twice a year, some not monitored at all

The dioxin 'issue' has not gone away. Only 17 out of possible 5,100 halogenated dioxins are monitored - and then only twice each year. Brominated and mixed chloro-bromo dioxins are ignored, and ten percent of the UK incinerators failed the test in 2006 - as did Nottingham when continuously sampled. But most dioxin is now in the 'fly' ash.

The smaller the particle the greater the danger

As any miner can tell you, the smaller the particle the greater the danger. The Environmental Protection Agency cites health studies indicating that particles smaller than 2.5 micrometers (PM2.5) are "the major contributor to serious health problems like respiratory illness and premature mortality" (http://www.crwi.org/textfiles/partem.htm). PAIN asks if the applicant can supply any data for brominated and mixed halogenated dioxins, given that semi dry scrubbers cannot remove bromine, and incinerators are loaded with PBDE (flame retardant) precursors. These questions have been put to Veolia, and to date they remain unanswered.

Recent research into modern incinerators

Whatever the technical details, everyone agrees that waste incinerators emit dangerous substances - the debate is around how much is emitted, and precisely how dangerous these emissions are. The fact that research into incinerator emissions is still being conducted demonstrates that the scientific knowledge is far from complete, and that uncertainties remain over safety. A recent study (Aboh, et al. 2007) that looked into a medium sized city in southwestern Sweden, clearly identified their new modern incinerator as the single most significant source of PM2.5's.

Another recent study (Mao, et al. 2007) found that the concentrations of PM2.5 and PM10 in the study area located downwind of the incinerator were significantly higher (between 220% and 700% higher) than the study area upwind of the incinerator. The study indicated that the air had "significant contamination by air pollutants emitted" from a waste incinerator, representing a public health problem for nearby residents, despite the facility being equipped with a modern air pollution control system.

Many studies, old and new, show that communities all around the world, living close to incinerators, even modern facilities, suffer higher rates of cancer and respiratory problems (e.g. http://tinyurl.com/y7dteo). The recently released Paris Appeal Memorandum, supported by the European Standing Committee of Doctors (representing 2 million doctors), urged a moratorium on building any new incinerators.

Air pollution

In March 2005 the Eastcroft incinerator at Nottingham was found to have breached dioxin limits. The spot measurement showed that emissions during the sampling period were 9 times higher than the emissions limit. Critically, given that dioxins are usually only measured every six months, the question arises were emissions 9 times higher over the entire six months? This could lead to the assumption that over the year dioxin emissions were 5 times higher than the emissions limit. Of course, actual emissions between measurements over the six month period could have been lower, or higher.

A study showed that spot measurements do not give a representative indication of the actual emissions over a period [De Fré and Wevers, 1998]. Continuous monitoring over a period showed that actual emissions could be 30 to 50 times higher than spot measurements. Combining the two observations for a worst case scenario, the actual emissions could have been 450 (9 x 50) times higher than the emissions limit, over a six month period. That's 45,000% of the permitted level. Given the toxicity and persistence of dioxins in the environment, this raises serious questions about the level of rigor applied to monitoring and enforcement.

Spot monitoring, unlike continuous monitoring, only measures pollutant emissions at occasional intervals. For example, spot monitoring may involve monitoring dioxin emissions just twice per year (once every 6 months). The duration of the sampling period for the measurements will typically be much shorter than the interval between monitoring activities. For example, the sampling period may last between 6 and 8 hours. So over a period of 6 months of emissions, the only data collected for those emissions would be during one monitoring activity at the start of the 6 month period and one at the end. For two sampling durations of 7 hours each that represents just 0.3% of the time between measurements (6 months). In other words, the emission rate is only known for 0.3% (14 hours) of 6 months, and is unknown for the remaining 99.7% of the time. Hence, spot monitoring may be unrepresentative of the actual emissions.

When such excessive emissions occur between measurements, the operator, the regulator and the public are often unaware of the incident. This means that steps could never be taken to stop such incidents developing, because they would not be detected. It also means that the public could not be warned at the time of the incident to take precautionary measures.

A worst case scenario might mean that the public and the environment become significantly contaminated, but the effects do not become apparent until many years later (e.g. in the form of cancers). Again, the inability to detect the incident, at the time, means that potential cleanup operations (e.g. of the environment, soil on agricultural land, gardens, allotments and contaminated food) would not take place until years after the damage had been done. Therefore, it seems reasonable for the costs of continuous monitoring to be compared with the costs of potential cleanup, health treatment and compensation scenarios.

In general, scientific knowledge on the health consequences of exposure to pollutants is acquired slowly. The consequent regulations usually follow one or more decades after the first concerns were raised. Relevant examples of this include the smoking of cigarettes, the use of lead in water pipes and on electronic circuit boards, the use of cadmium and mercury in products, and the manufacture and use of PCBs. Therefore, a responsible approach might learn from history that it is wise to be cautious if a substance is thought to have health implications.

It is widely recognised that during an incinerator's commissioning phase, emissions will be higher than normal and could breach emission limits on several occasions. What impact does this have on the health of the local community? PAIN calls for further investigation before planning permission is granted.

Given all of the above, and considering the difficulties with epidemiological studies, perhaps it would be wiser to advise caution in terms of the confidence we have about the impact of non-standard incinerator emissions on human health. Perhaps it would be prudent to instigate other ways of managing discarded materials that do not produce dioxins. Remember, dioxins are not present in the waste. Dioxins, and other persistent organic pollutants, are literally created by the incineration process itself.

What are the long-term impacts from the toxic outputs of incineration? For example, just one incinerator will produce something in the order of 100,000 tonnes of highly toxic fly ash (or APC residue) over its period of operation. The dioxins in that material may persist for decades, or even centuries. This means that a complete evaluation would need to answer the question: where will those dioxins be in 10, 20 or 200 years? Will they still be contained within the confines of the hazardous landfill site, or will groundwater have been irreversibly contaminated?

Chimney stacks

If the 2-stack design was chosen for reasons of 'style' what are the implications for emissions? What is best for maintaining highest possible temperatures in order to maximise the destruction of pollutants (and the avoidance of (re-)formation of dioxins? Was consideration given to the local misty conditions when the stack height of 75m was calculated?

Employment

Waste recycling generates far more employment than disposal through incineration. For every 100kt waste treated, it has been estimated that 200 jobs are created in recycling programmes, compared to only 20-40 jobs for incineration. (http://ec.europa.eu/environment/waste/pdf/epec_report_05.pdf).

House prices
Studies in Andover, Massachusetts linked 10% property devaluations with close incinerator proximity (Economic Analysis and Land Use Policy, http://es.epa.gov/ncer/publications/workshop/pdf/EE-0428-01.pdf Session of Workshop sponsored by EPA and NCERQA, Washington 1999).

Other studies showing falls in property value due to incinerator proximity include:
1. Kiel K.A. and McClain K.T. The effect of an incinerator siting on housing appreciation rates. Journal of Urban Economics 37 (1995) 311-323.
2. Kiel K.A. and McClain K.T. House prices during siting decision stages - the case of an incinerator from rumor through operation. Journal of Environmental Economics and Management 28 (1995) 241-255.
3. Farber S. Undesirable facilities and property values: a summary of empirical studies. Ecological Economics 24 (1998) 1-14.
4. McCluskey J.J. and Rausser G.C. Estimation of perceived risk and its effect on property values. Land Economics 77 (2001) 42-55.
5. Cameron T.A. Directional heterogeneity in distance profiles in hedonic property value models. Journal of Environmental Economics and Management 51 (2006) 26-45.

Un-sustainability
Resources such as paper, card, textiles, garden waste and some plastics, that could have been easily recycled, and used again, are lost once burnt. This means more raw materials, and more fossil fuels, will have to be mined and processed to produce, and transport, similar products again. Given the Earth's finite resources, this is not a sustainable process. The requirements of the incineration, or energy recovery, process are effectively in conflict with any strategy that seeks to reduce, re-use or recycle.

Once such a waste management strategy successfully reduces the high calorific feed of waste to the incinerator a conflict arises. The result then is that either: (a) the progress of the waste reduction strategy has to be stopped; (b) the incinerator has to shutdown; or (c) both the waste reduction strategy and the incinerator continue by importing additional waste into the area. However, option (c) would be in violation of the proximity principle, which aims to reduce the transport of waste by processing waste locally.

PAIN has recently received some worrying information from the Environment Agency which indicates that some of our discarded materials, including steel, may actually be going from Nottinghamshire to China.

Miscellaneous
The use of negative pressure inside the reception hall is current best practice and should eliminate dust and odour issues as it has been successfully used in the composting industry and others. Will negative pressure technology be included in the planning / permit applications?

What capacity are the reception bunkers at the site? How much waste or equivalent days waste can they hold in the event of a breakdown of the burner or grate?

We understand Veolia plans to build a 'bottom ash recycling facility' in our region - is the Old Rufford Colliery considered a potentially suitable site for this? PAIN believes that an answer to this question is a material planning consideration.

"Public concern is a material planning consideration and has in part led to previous applications [for waste incinerators] being refused (e.g. Kidderminster). Public concern founded upon valid planning reasons can be taken into account when considering a planning application" (www.defra.gov.uk/environment/waste/wip/newtech/pdf/incineration.pdf page 25).

A British Plastics Federation study found that recycling plastic cups is "preferable to incineration in energy terms" [Morris J (1996) Recycling versus incineration: an energy conservation analysis *Journal of Hazardous Materials, Volume 47, Issues 1-3, May 1996, Pages 277-293*].

Evidence of sufficient consideration of Incinerator Sector Guidance Note S5.01 with regard to dump stacks does not appear to have been included in support of this application. Dump stacks may be incorporated in the design as a safety feature but should only operate for safety reasons or where a heat removal system has failed, and the downstream gas cleaning plant will otherwise be damaged. In general, it should be possible for dump stacks to be ducted to the main stack, thus forming a bypass and improving dispersion with the additional height and allowing monitoring equipment to quantify the release. Systems must be designed so that the dump stack does not operate as part of normal, planned operation. Operational frequencies greater than once per year are unlikely to be acceptable. When a dump stack or emergency bypass operates this may be considered to be a period of "abnormal operation" and the process should be reduced or closed down (Ref. WID Article 13). If the release of particulates exceeds 150 mg/m3 or the half-hourly CO or TOC ELVs are exceeded, the plant should be shut down immediately. An Impact Assessment of releases to air during abnormal conditions should be demonstrated using Guidance Note Environmental Assessments for BAT and the associated software. Has such an assessment been conducted? Where have the results of this assessment been made available for consideration?

PAIN's Points on the Non-Technical Summary

- NCC have never used the site for landfill. In Veolia's application (Non-Technical Summary of the ES), they state: "2.1.13 ...Adjacent and to the east of the quarry, is a former municipal waste landfill site previously utilised by Nottinghamshire County Council." NCC was unable to provide further information regarding this landfill site.

  Dear Mr Dowen

  I am writing in response to your questions in relation to the history and status of the land categorised as *'adjacent and to the east of the quarry, is a former municipal waste landfill site previously utilised by Nottinghamshire County Council'* - see below.

  Please accept my apologies but we are currently having difficulty in locating the information to answer your questions in regard to this land - the info you require covers a number of different aspects and services (planning, enforcement, waste management, minerals & waste policy and property). We want to give you a coherent answer and therefore I will notify you when we have all information to answer your questions.

  I hope that is OK with you - please tell me if this is otherwise and thank you for your patience.

  Regards
  Rob Bayley
  Notts County Council Customers & Access Team

- PAIN was unable to locate any mention made of how and what materials will be used to seal the site (i.e. respond to permeability of soil, bunter sandstone)
- 4.8.1 - when was the (previous) hydrology assessment made and what was its purpose/context?
- Has ground stability been reassessed - what are results of newer tests?
- No indication that consideration was given to unique environmental conditions re: localised fog appear in the summary (4.4.7)
- 4.8.8 impact on ground conditions deemed minor - by whom? based on what methodology?

PAIN's points re: Planning Supporting Statement

- 4.100 Various options have been explored by Veolia to supply local users within the area with heat from the ERF process. However, no suitable industrial or commercial users, new residential development or community facilities with a continuous heat requirement have so far been identified in close proximity to the site. Veolia will continue to explore potential users and the facility will be designed to facilitate the supply of district heating for future suitable new developments. Whilst not forming part of this development proposal, potential sources may well arise from UK Coal's masterplan redevelopment aspirations for the wider Rufford Colliery site. This suggests heat use was not a priority when selecting a site.
- 4.103 "Flue gas treatment will start in the post-combustion chamber in which flue gases will be maintained at a temperature of above 850°C for at least two seconds in order to ensure complete combustion and destroy dioxins and furans. These complex hydrocarbon chains can reform during cooling of flue gases through the range of 450° to 200°C and thus the boiler will be specifically designed to ensure rapid cooling of the flue gases, to significantly curtail the opportunity for this to occur." Insufficient information is provided regarding the proposed cooling system / methods to assess whether or not they represent Best Available technology.

  Incinerator Sector Guidance Note S5.01 states: Cooling systems are mainly required at incineration installations for:
  • condensing steam for re-circulation after a steam turbine (the major use)
  • cooling scrubber waters to reduce scrubber water evaporative losses
  • cooling quench water
  • cooling of mechanical operations (e.g. pumps etc.)
  • condenser chilling

  The main cooling systems in use at waste incineration installations are where electricity is generated using steam turbines. The need to retain (expensive) boiler water means that they will be closed circuit (i.e. the boiler water is retained within the system for re-circulation). The main differences arise in the design of the heat exchanger and the source and fate of the cooling medium. In this sector the cooling medium is usually supplied by: once through sea water or river water, evaporative cooling tower, and/or forced draft air cooling

Table 2.3: Cooling system type - advantages and disadvantages

Cooling System Type	Advantages	Disadvantages
Once through	• Greater cooling efficiency may improve energy recovery • Low noise impact • Low visual impact	• Possible fish kill • Possible thermal release effect in water course • Bio-fouling • Biocide discharges
Evaporative cooling	• Good cooling efficiency • Small plot possible	• high visual impact • water consumption • chemical treatments for bio-hazard control
Air cooling	• No water intake or discharge • Unobtrusive design • No water consumption	• Possible noise impacts • Lower cooling efficiency • Power supply costs

Discharge of cooling tower water
1 Where evaporative cooling towers are used, biocides lead to releases to both air and water and their use should be minimised (commensurate with meeting health and safety requirements) by optimising the dosing regime (e.g. intermittent shock dosing or only dosing at critical times of the year). The use of automatic mechanical cleaning systems for main condensers minimises the use of biocides.
2 The engineering of the biocide system should prevent accidental over-doses of biocide being released to the environment. This would involve monitoring of levels in the outgoing water coupled with automatic operation of the final discharge valves, as well as bunding of storage vessels and adequate operating procedures.

Cooling water intakes
3 Once through cooling systems can be more efficient and may therefore improve the overall energy efficiency of the installation. Such systems will only be suitable where: there is adequate provision of water (e.g. coastal sites); CHP or district heating cannot practicably use the waste heat on a closed loop; fish (and other aquatic life) kill by the water intake has been assessed and will not be significant thermal and biocide dispersion are such that environmental impacts are not significant; the energy and any other environmental benefits can be demonstrated to outweigh alternative technological solutions (e.g. air condensers)

Cooling tower plumes
4 Large condensed plumes, such as those from evaporative cooling towers, which come down to ground level can contain harmful substances and cause loss of light, poor visibility and icing of roads. Such effects should be minimised, and Applications should consider the meteorological conditions under which visible plumes may be formed.

Releases to land
5 Timber used in cooling towers is usually treated with CCA (copper sulphate, potassium dichromate, arsenic pentoxide), most of which remains well bound to the timber over its operating life, but initial surface residues can lead to significant levels in the purge water. Specifications for treated timber should include the requirement for controlled washing at the treatment site.
6 On final disposal, incineration of the cooling tower timber in the installation may only be carried out if it has been specifically authorised. The Application will need to have demonstrated that such disposal is BAT.
7 Other wastes may include sludges from effluent treatment plant associated with cooling water treatment and recirculation and intake screen washings. All such wastes should be stored securely pending transfer for disposal. On site incineration may be carried out only if specifically authorised.

Abatement technology should be selected such that the emission limit requirements of European legislation are complied with **as a minimum**. Operators will be required to demonstrate that their techniques correspond to the use of BAT as well as meeting these standards.

There may be benefits accrued from using a number of the techniques described in this section in combination. Furthermore, the selection of one particular abatement system or a particular combustion design (e.g. fluidised bed) may, for valid engineering and environmental reasons, exclude the use of, or undermine the performance of, an alternative abatement system. It will therefore be appropriate for operators to justify their individual equipment selections by reference to the performance of the installation as a whole i.e. operators should set out a number of alternative installation designs and compare the overall performance.

- 4.156 +/- who will be expected to buy the bottom ash? (evidence of a market for this by=product has not been supplied)
- 4.192 Bottom ash sampling - how often? what are the results of testing at other Veolia sites?
- 4.415 The claim that no fossil fuel will be used seems incorrect
- 5.13 Excerpt from 2007 Waste strategy relates to anaerobic digestion, NOT to incineration.
- 5.14 recycling crowded out in other parts of Europe - hence introduction of disincentives, including caps, incineration taxes, etc.
- 5.19+ refer to Regional Waste strategy doubts over incineration!
- 5.21 and 5.2.2 show inaccuracy of the waste arising predictions!
- 5.25 Notts Waste strategy replaced by PFI with no public engagement at all! "The Municipal Waste Management Strategy for Nottinghamshire (MWMS) was approved in 2001. This has effectively however been replaced by the provisions of the PFI contract for waste management services". However flawed, at least the MWMS allowed for a modicum of public consultation - whereas the PFI certainly did not (in fact, comments from the public, including a petition signed by more than 4,300 people, were dismissed by NCC during the process of 'replacing' our waste strategy). The notion that NCC's contract with Veolia somehow replaces the existing waste strategy seems to me to be anti-democratic. Where do we turn for redress?
- 5.33+ Increased incinerator capacity based on false assumptions about time of incinerator operations (to start 2009 not 2012+) and incorrect assumptions about the monetary value of LATS
- 5.49 “Policies 2 and 3 require that a sequential approach to site selection be followed, prioritising the use of previously developed (Brown Field) sites in the first instance.” site is greenfield!! what evidence is provided to show all brownfield sites were explored and deemed unsuitable? Proposals appear to go against the very policies they quote!
- 5.58 The proposed ERF is an essential component within the network and must be developed if the councils are to achieve compliance with international, national and local policies that require increased levels of recycling and diversion of MSW from landfill; PAIN disputes this claim!
- 5.76 In Nottinghamshire it is forecast that growth in municipal waste arisings should fall from a current growth rate of approximately 1.6% to zero by 2018. This has already been achieved in some areas.
- 5.81 Incinerator to include commercial waste? Have Veolia included this in their IPPC application?

- 5.83 why so little sent / to be sent to Eastcroft? What about contract to supply 60,000 tpa? Why do official Defra Waste figures record 56,175 tonnes incinerated in 06/07? And why are target recycling figures higher than predicted 'actual' figures?! 'Actual' recycling figures (from 2019/20 - 2033) are more than 5,000 tonnes below their target (already!)
- And what of landfill figures? Where did they get their landfill figures? They do not seem to relate in any way to landfill allowances.
- Note that the incinerator is expected to be fully operational in time to burn 180,000 tonnes in 2012/13. This seems unrealistic and misleading.
- 5.97 "In identifying the former Rufford Colliery as the optimum location for a new Energy Recovery Facility (ERF), Veolia Environmental Services (Veolia ES) has undertaken a comprehensive search for potential sites within the greater Nottinghamshire and Mansfield/ Ashfield area. This search was conducted having regard to the key principles set out in PPS10 as well as other considerations including site size, accessibility availability, developability and commerciality." - no mention of harnessing the heat! no mention of sequential approach - i.e. exhausting all possible genuine brownfield sites before moving on to greenfield site
- 5.102 A detailed appraisal using a non numeric system of scoring… At the time of this assessment, were consultants aware of the restoration condition and the proposal's departure from the Local plan? Why does Rufford get an A for Planning vision for the area when the site has a restoration condition imposed on it, and proposals depart from the Local Plan? Why is it deemed neutral for Site Specific Allocation (departure, restoration condition)? Were consultants aware of residences on Pit Lane? Why neutral for Sensitive Receptors? Why neutral for Landscape Considerations and Natural Environment when it would detract from natural environment as planned? Why A for Rail and water transport when this is not being utilised? (should be neutral because it could come into play, but not in short-term) "6.7 The proposals have been designed such that reinstatement of the rail facilities adjacent to the development site at some stage in the future is not precluded." and 9.50 "rail transportation of process materials is not currently practical…"
- 5.105 The key benefits of the Rufford influencing its selection include:
  • Rufford is geographically and demographically central to the major sources of contract waste arisings and other contract infrastructure. - does it fall within overlap used on Veolia's MRF application map?
  • The site has a suitable planning status - this is not correct!
- 5.110 no convincing arguments advanced that show incineration is best option - no evidence of need
- 5.116 This process has also been heavily influenced by the aspirations of the Nottinghamshire County Council for a high quality, iconic and statement building that would demonstrate Nottinghamshire's commitment to innovation and good design - NCC involved in design of facility (supports call-in argument)
- 5.119 The design provides for functional/operational activities which are enclosed within an envelope that is light and airy reflecting the rural setting… - acknowledges rural setting, as does "9.45 The proposal site is located in the countryside"

- 5.127 It is concluded that the proposal is sustainable in terms of the waste streams involved and for the site itself, in that:
  • It treats the residual waste stream at the appropriate level in the waste hierarchy; - by leaving out anaerobic digestion it violates the waste hierarchy and 2007 waste strategy, and by not capturing the heat it violates the EU Directive
  • The proposal complies with the principles of regional selfsufficiency as well as being of the right size and capacity for the catchment area it is intended to serve. - the oversized facility depends on the supply of commercial waste, despite being marketed as a Municipal Waste facility
- 6.4 The proposed development is predicted to generate a traffic flow of 254 vehicle movement over the day including 182 heavy goods vehicles… - this does not accord with what Veolia said in their leaflet
- 6.22 Development would affect the opportunity to establish a Sherwood Regional Park and to further enhance the landscape of this area...
- 6.30 “With the creation of heathland areas, grassland and tree planting, landscaping for the scheme is predicted to have a net positive impact on the nature conservation value of the area containing the facility”. - not when compared with restoration to heathland and woodland, as prescribed by the existing planning condition!
- 6.33 “An assessment of the infiltration potential at the site was undertaken insitu and these results confirm a high infiltration potential”.
- 6.42 “The proposed site lies directly over a sandstone with a high permeability to water, recognised regionally as an important source of drinking water”. - so, what mitigation is proposed?
- 6.47 “The site contains no known mine shafts or adits and site investigations have shown the ground stability to be reasonable”. Anecdotal evidence to the contrary has been supplied to PAIN
- 6.61 “The potential community and social effects of the proposed development have been assessed”. Negative impacts can already be observed, including community conflict exacerbated by Veolia’s mis-handling of community relations in the run-up to submitting this application
- 6.70 “It is considered that the proposed facility will have a negligible impact on the surrounding land uses both during construction and operation. The impact on the site will mean a change of use from the existing coal stocking area to the proposed use”. The entire assessment is therefore flawed, as it should have been carried out in relation to restoration to heathland and woodland!
- 7.4 “The HIA is also intended to further address perceived risks and community concerns and to provide information to further alleviate community fears”. - acknowledgement of community’s fears - a material planning consideration… “Public concern is a material planning consideration and has in part led to previous applications [for waste incinerators] being refused (e.g. Kidderminster). Public concern founded upon valid planning reasons can be taken into account when considering a planning application”
- 8.5 “The following sources were reviewed in developing the sustainability appraisal objectives used…” - the list does not include 2007 Waste Strategy; also fails to mention climate change assessment (meant to take precedence over other PPSs)

- 9.32 “This non-numeric assessment enables the comparison of the relative merits of each site and identifies that the Rufford site exhibits more positive attributes when compared with those located elsewhere. It concludes that no better site than that of the former Rufford colliery has been identified”. - but criteria (and assessment) were flawed! no heat capture criterion, nor climate change assessment, no sequential approach.
- “The Rufford site presents itself well in terms of planning vision…” - what does this mean? What evidence is offered to support this claim, other than statements that relate to brownfield sites?
- 9.45 Everything that flows from the initial flawed premise, that the site is anything other than a greenfield site, is itself flawed. the phrase ‘previously developed land’ has a specific meaning within the context of planning law, and as has already been mentioned, the Old Rufford Colliery Car Park site has unambiguous status as a greenfield site. It might as well be called “the Former Ancient and Current fragile heathland Sherwood Forest site”. As much as the applicant may wish to dismiss the site’s rightful status, the claims of relevance of local and national policies listed in 9.45, 9.46 and 9.47 simply do not relate to the proposed site. The site is not covered by any of these policies.
- 9.46 The proposal site is not identified within the Development Plan as a site for waste management development.

PAIN's points re: Environmental Statement

- 1.2.24 (ES): "The ERF has been sized to accommodate predicted arisings of residual household and municipal waste from the seven district and borough councils of Nottinghamshire assuming that a 52% recycling and composting rate is achieved in line with the Councils' targets." Predicted when? What assumptions are made re: waste arising in Notts, and why are these assumptions not in accordance with the latest figures?
- "Household and municipal waste from Nottinghamshire will have precedence over any other ERF input waste." An admission that non-household waste from outside Notts may be incinerated at the proposed facility (being paid for by NCC tax-payers)
- 1.2.27 "The operation of the proposed plant would fully comply with Government and European Union (EU) legislation and policies." PAIN (and SEPA) argue that without heat capture it will not comply with WID
- 1.2.28 "All waste inputs into the site will be non-hazardous." The same cannot be said for the outputs. Also - what about batteries? Low energy lightbulbs (contain mercury)?
- 1.6.9 "Given the relative distance of the development from residential receptors, the need for a specific chapter addressing amenity affects has been scoped out." PAIN believes this mistaken assertion makes the ES a flawed document because impact on nearby residents has not been properly assessed. Additionally, the height of the stacks (75m) means there will be adverse amenity impacts for literally miles around.
- 1.6.12 The provision of details of Veolia's website and e-mail facility give a false impression, when e-mail messages/questions put to Veolia went unanswered! Questions put to Veolia via Liaison Group have gone unanswered too.
- 1.6.13 Summary of Key concerns misses out the following concerns raised throughout the period - see details on Veolia's website at: www.veoliaenvironmentalservices.co.uk/nottinghamshire/pdfs/Accompanying_notes_to_PAIN_prestn_3.pdf
    - climate change impacts
    - fly ash / residue and its hazardous landfill (e.g. near Bishops Cleave)
    - nanoparticles being released into the atmosphere
    - also emissions of heavy metals such as vanadium, manganese, chromium, nickel, arsenic, mercury, lead and cadmium
    - shortcomings of spot monitoring for certain outputs, and no monitoring for other outputs
    - compromising the site's restoration to heathland and woodland
    - specific impacts on nearby SSSI's and LNR, including disruption of nightjar nesting sites, nitrogen deposition
    - the terms of the Waste PFI contracts between Veolia and NCC
    - Non-compliance with policy framework, including missed opportunity for AD (especially of 60,000+ tpa of kitchen waste) and concern re: capping recycling at 52% through 2033 in order to maintain supply of materials for incineration.
    - 180,000 tpa capacity not needed, as waste arising is stable or falling (certainly not rising as quickly as Veolia/NCC expected)
    - Instability of land in and around the proposed site
    - Lack of promised wider consultation
    - Potential impact of introduction of a UK incineration tax

    - The sharing of ‘planning risk’ between Veolia and NCC
    - How will energy gain be maximised? Heat capture?
    - Cost / value for (taxpayers’) money (impact of rising steel prices, etc.)
- 1.7.6 Potential cumulative impacts highlighted as areas of concern by PAIN during the Scoping stage have not been investigated, and do not appear in the ES
- 1.7.9 “The coal stocking, blending and distribution activities currently taking place on the site” - a deliberatly misleading statement, as it is widely known that such activities ceased months ago!
- 1.7.10 “However, the previously developed and brownfield nature of the site…” - the proposed site is classed as a greenfield site by virtue of the planning condition to restore the site to heathland and woodland
- 1.712+ ES/EIA flawed because it did not take sufficient account of restoration condition, ignores cessation of coal blending activity and dismisses departure from Local Plan
- No decommissioning assessment, despite requirements under EU Directive (Annex III) INFORMATION REFERRED TO IN ARTICLE 5 (1)
- How can Veolia ensure batteries / low energy lightbulbs are not incinerated? What about plastic carrier bags, and other recyclable material included in so-called ‘contaminated’ loads of recyclables (i.e. recyclable plastics ‘contaminated’ with plastic that could be recycled, but which Veolia chooses not to recycle)?
- The whole process is a very long way from participatory decision-making, in violation of NCC’s own Community Engagement Policy and the spirit of its Statement of Community Involvement / Local Development Framework
- According to Defra figures, NCC waste arising for period June 2006 - July 2007 was about 430,000 tonnes in total (not 460,000 as stated in 1.2.1)
- 1.2.2 “Whilst the amount of waste generated per person is slowing through waste minimisation and recycling efforts at local and national levels, the amount of municipal waste produced in Nottinghamshire is still expected to exceed half a million tonnes in the next 5 years.” On what basis, when over the past 5 years waste has been stable, even falling (02/03: 458,325; 03/04: 448,133; 04/05: 466,665; 05/06: 441,626 and 06/07: 432,000).
- 1.2.5 “The main objective of the strategy is to minimise the volume of waste sent to landfill whilst recycling and recovering as much of the waste resource as practically possible.” If such a strategy were pursued an incinerator would not be needed! No persuasive evidence of need for this proposed facility has been provided. By the time it would be built it would be surplus to requirements, and surpassed by better (more environmentally friendly and commercially viable) alternatives (e.g. AD).
- 1.2.6 Recycling capped at 52% does not match claims in 1.2.5 about maximising recycling, etc. This must be what is meant by: “Attaining minimum recycling and composting levels” in 1.2.6.
- Does “Providing appropriate infrastructure for the waste collection authorities” include AD facilities?
- 1.2.9 “The proposed ERF is an essential component within the network and must be developed if the councils are to achieve compliance with international, national and local policies that require increased levels of recycling and diversion of MSW from landfill.” What evidence is provided to support this claim?

- 2.1.1 is misleading, even deceitful. The notion that the site “can be considered ”brownfield” in character” masks the importance of the planning condition to restore the site to heathland and woodland, and the fact that in planning terms, the site is formally classified as greenfield.
- 2.1.9 What evidence can be provided to support the claim that “…coal stocking, blending and distribution activities [are] currently taking place on the site and surrounding pithead area”? or that a part of the larger site was ever used by NCC for landfill [2.1.13]?
- 2.2.23 “An adequate air supply will be maintained through injection of air into the grate and the combustion of the wastes. The furnace will be designed to ensure a minimum flue gas temperature of 850°C for two seconds to ensure the destruction of dioxins, furans, PAHs (polycyclic aromatic hydrocarbons) and other volatile matter”. What research supports these assumptions? What of the issues raised by PAIN, and forwarded on to RPS, pertaining to brominated and mixed halogenated dioxins and related concerns? PAIN’s concerns remain unaddressed by Veolia’s ES
- 2.2.26 “The two streams will each have a single flue chimney with a proposed height of 75m. The height has been determined through extensive computer modelling of emissions and evaluation of the resulting dispersion plumes.” More detail of methodology is required to assess these statements, including evidence that local misty and damp conditions were modelled, with accurate contours to represent the actual landscape.
- PAIN would like to see more detail about the destinations for the ash / residue, etc. than is provided in 2.2.27. “The main residue produced by the ERF will be bottom ash (the non-combustible elements remaining after the process)…It is predicted that, excluding recovered ferrous metal, (approx 3,600 tonnes of which will be magnetically recovered at the ERF for recycling) [why not removed before incineration?] Approximately 45,000 tonnes of bottom ash will be produced each year. Where practical, this will be taken to a facility, to be determined, where it will be processed to produce secondary aggregates for use in construction and road building projects. Indeed, Veolia are currently working in partnership with secondary mineral processors to develop a number of strategic outlets around the UK. Any unrecycled bottom ash would be sent to landfill. The flue gas treatment (FGT) residues (approximately 7,200 tonnes per year) containing the dry reaction products and fine ash collected by the flue gas treatment process will be transferred to sealed tankers and transported off site [to where?] for beneficial reuse in chemical processes [by whom? what processes?] or for specialist treatment prior to disposal” [to where? Have residents living nearby to the proposed final disposal site (e.g. in Chesterfield) been consulted??].
- 3.3.1 “Independent specialist consultants have assessed each of the environmental issues identified.” Who are these specialist consultants? What assumptions did they make? What data did they use?
- 4.2.9 “A high-level comparative assessment of different residual waste treatment options has been undertaken and illustrates the variability in the performance of different options…” Undertaken when, by whom, using what assumptions and data?
- 4.2.10 The site search does not appear to have included concern for harnessing the heat

PAIN's comments re: The Liaison Group

Liaison Group composition was not typical of the Rainworth community, because so many of those who oppose the incinerator did not trust a forum paid for by Veolia.

Reasons given by Rainworth residents for not participating in the Liaison Group included:

- Despite good relations with 3KQ, trust was not built with Veolia
- Many questions put to Veolia remained unanswered
- There was a lack of response from Veolia to MAIN's invitation to round-table discussions on the MRF (the sorting facility being built in Forest Town) despite verbal promises to participate
- Mistrust of Veolia, even sense of betrayal, arising from bad experiences in Forest Town, where residents felt that a distorted and inaccurate account of the Information Event was included in the MRF planning application
- Insulting and inaccurate letter published in the Chad in Simon Bussel's name at a crucial juncture
- PAIN's goodwill gesture to work together with Liaison Group was rebuffed
- The Liaison Group's Terms of Reference rule out influencing the outcome
- Community members were unconvinced of the seriousness of Veolia's intention to listen and respond to concerns, or of Veolia's openness to change in any substantial way as a result of comments from Liaison Group members
- Community members remain unconvinced of the meaningfulness of engagement, given its limited scope
- Community members do not recognise the Liaison Group as a valid form of consultation
- Terms of Reference put the Group outside the planning application process, and Veolia's reference to the Group in their planning application violates those Terms of Reference

Despite these matters, PAIN offered to work together with the liaison group to attract a wide range of expert speakers to come and delivery presentations and take questions in an atmosphere that was open to all members of the public (no limited to those selected by Veolia to attend). These repeated offers were rejected by the Liaison Group (but not by the few local residents who participated in the Liaison Group, some of whom then left the Liaison Group and joined PAIN's membership). And despite all of this, PAIN delivered a presentation, and answered questions, at a Liaison Group meeting.

Call-in

PAIN feels that there are ample grounds to support call-in, and that the planning decision should be taken from Nottinghamshire County Council, and a public inquiry should be held. This view has been formed on the basis of:

- NCC's refusal to release PFI details.

  Excerpt from the JOINT OFFICER BOARD
  WEDNESDAY 28 NOVEMBER 2007 Minutes

  5.4 DP [DAVE PARTON - GEDLING BOROUGH COUNCIL] asked if there were any plans to look at food waste collection in the future. MJA [MICK ALLEN - NOTTINGHAMSHIRE COUNTY COUNCIL] confirmed that not at the present time as the contract can deliver targets promised to Defra without food waste

  - This does not constitute maximising recycling and composting. On the contrary, this is evidence that the incinerator is already proving to be a barrier to increasing crecycling and composting, driving waste management in Nottinghamshire the wrong way in relation to the waste hierarchy.
- Waste PFI is a material planning consideration, as the Contracts are being used as a reason not to compost food waste - this relates to planning guidance to maximising recycling rates and minimise environmental damage (including climate change impacts).
- The electricity-only facility does not qualify as recovery
- Joint NCC / Veolia leaflets, making use of NCC logo alongside Veolia's logo (see correspondence with Malvin Trigg: "With respect to your comments on the use of Nottinghamshire County Councils logo I understand that you are aware that the Council has endorsed the appointment of Veolia as the County Councils waste partner for the next 27 years... It is therefore, entirely appropriate that Veolia use the County Councils logo on all public facing material with respect to this contract. I therefore completely reject your comment that the use of the logo was in someway unfair and misleading. It in fact confirms the partnership approach the County Council and Veolia are taking with respect to this contract." Re: Waste and Recycling General 20/06/2006
- Nottinghamshire County Council shares planning risk with Veolia
- The applications (to NCC and the EA) raises issues of more than local importance, including concerns about impacts on nationally important sites and the area over which waste would be collected - particularly with high recycling rates (70% according to NAW) now accepted to be both possible and economic. "During the recent modelling exercise…and based on detailed scrutiny of the data, it was estimated that up to 93.3% of Welsh municipal waste could either be recycled or composted / anaerobically digested."

- Incineration is played off against untreated waste sent directly to landfill, but not favourably measured against anaerobic digestion, yet “several studies commissioned by DEFRA and WRAP have concluded that anaerobic digestion has the greatest greenhouse gas reduction benefits for the management of food waste over in-vessel composting and incineration with energy recovery [Environmental Benefits of Recycling, WRAP (2006) www.wrap.org.uk/document.rm?id=2838]. Also, according to “FUTURE DIRECTIONS FOR MUNICIPAL WASTE MANAGEMENT IN WALES”: “A recent study of food waste anaerobic digestion systems used extensively across Europe indicates that this is a mature technology that has significant benefits, particularly the production of a renewable fuel/energy [Anaerobic Digestion of Biodegradable Municipal Waste: A Review carried out by the University of Glamorgan with support from the Assembly Government].”
- New Scottish SD Commission report identifies safeguards that the current application would fail - not least the energy efficiency criteria (60% instead of Veolia’s 20%): No waste to be thermally treated unless separation of recyclables has first taken place [Veolia intend to burn recyclable plastic and kitchen waste]; Energy from waste systems need to be evaluated on their ability to reduce carbon emissions; Energy from waste plants should recover energy to a minimum efficiency level of 60% [which means that no current UK incinerators would comply with the conditions]; Schemes should be developed in accordance with the proximity principle; Discussion and planning about local infrastructure must only take place following proper engagement of local communities and Stakeholders [this has not happened in Nottinghamshire]… “On the assumption that landfill will be reduced eventually to as close to zero as possible (because of policy drivers and costs), maximum levels of energy from waste automatically will mirror minimum recycling levels. Thus if the recycling target for 2024/25 is set at 70%, the maximum amount of energy from waste allowable should be 30%...” How can we ensure that this is properly applied at Rufford given the increasing importance of climate change and energy conservation?
- The application departs from the Local Plan. “9.46 The proposal site is not identified within the Development Plan as a site for waste management development” (also see Notes 1 and 2, below), and goes against the planning condition that this greenfield site be restored to heathland and woodland (as specified in the restoration condition set by NCC).
  In our understanding, NCC retain power over the restoration of the site.
- The development precludes the establishment of a Sherwood Regional Park [“6.22 Development would affect the opportunity to establish a Sherwood Regional Park and to further enhance the landscape of this area...” goes against Regional policy: Regional Plan (Northern Sub-Regional Policy 5).]
- The development appears to conflict with national planning policy on important matters. Allowing Veolia planning permission for an electricity-only waste incinerator would be of national significance in so far as it could be in violation of the European Waste Incineration Directive, leaving the UK exposed to Article 226 infraction proceedings.

- According to their application: “Various options have been explored by Veolia to supply local users within the area with heat from the ERF process. However, no suitable industrial or commercial users, new residential development or community facilities with a continuous heat requirement have so far been identified in close proximity to the site…” suggesting that heat use was not a primary concern when selecting the site [neither was a sequential approach applied, as the site is classed as greenfield].
- Proposals go against the waste hierarchy, with plans to burn instead of compost 60,000 tpa+ (1/3rd or more of the incinerator’s capacity) of kitchen waste. Also, contrary to the Waste Incineration Directive, there are no viable plans in place to harness the heat - making the energy generated by the proposed incinerator far less efficient than gas- or coal-fired power stations. In terms of Climate Change, the proposed facility would release far more greenhouse gasses than a gas- or coal-fired power station! The incinerator would be so inefficient it would fail to meet the (revised) EU Waste Framework Directive criteria for classification as an energy recovery facility.
- The proportion of municipal waste to be burned (48%) is too large and will prevent higher recycling and composting levels in the future. This is counter to the need to move waste up the waste hierarchy as required by PPS10.
- PPS10 has a self-sufficiency objective that communities should take more responsibility for their own waste, but the proposal supports the creation of a highly centralized disposal facility with waste transferred from across the plan area.
- Waste planning authorities must take climate change impacts into account when planning for sustainable waste management and determining planning applications. The proposal cannot demonstrate incineration is the best technical solution to reduce the emission of gases that cause climate change. Proposals are therefore not in compliance with PPS1, and are out of step with the 2007 National Waste strategy's emphasis on promoting anaerobic digestion of biodegradable (kitchen) waste. The proposal does not contribute to sustainable development, which PPS 1 suggests planning authorities should promote through urban regeneration *”to improve the well being of communities, improve facilities, promote high quality and safe development and create new opportunities for people living in those communities”*.
- The development could have wide effects beyond its immediate locality: household waste arising figures indicate that the proposed facility would have to rely primarily on commercial and industrial waste and/or waste brought in from outside the County for between 67% - 100% of the 180,000 tonnes, while simultaneously contributing to a failure to meet recycling targets [Veolia’s planning application includes a table showing an expected maximum 45% recycling rate up and including 2032-2033]. By 2020, 75% of waste incinerated at this facility is expected to be required from Commercial and Industrial sources.

- Despite public claims to the contrary (e.g. by Malvin Trigg at the Groundswell debate 21st March 2007), NCC have all along been planning to accept waste from outside of Nottinghamshire, in anticipation of shortfalls - signalling that the proposed facility is too big (i.e. evidence of need for the 180,000 tpa capacity cannot be demonstrated), that NCC was prepared to mislead the electorate to promote Veolia's commercial interests (i.e. the interests of their business partnership), that Councillors (including those on the Planning committee) have been led to believe that the incinerator will provide an income (ignoring the huge costs!), and that NCC are not working in the best interests of Council Tax payers.
  - From Nottinghamshire County Council Business Plan Professionalising Procurement Status: Draft Version 0.85 24 August 2006 (page 56): "A long term PFI deal has recently been agreed that will...potentially generate income by renting capacity to neighbouring Waste Disposal Agencies."
- Studies to rule out ozone (smog) damage to Sherwood Forest have not been undertaken as part of the Environmental impact Assessment, despite scientific evidence of the need for such a study.
- Presence on proposed site of purple moors grass (and possibly grass snakes) - protected in National Plan, and linked to presence of rare moths. In line with national and regional planning policy, steps should me taken not only to maintain biodiversity at the site, but also to enhance it, and deliver a net gain for biodiversity (see PPS 9 para. 1(ii) and RSS 8 policy 1 and 27). Also, the application fails to recognize that Rainworth water is a commercial fishery!
- 4.43 “It is important to note that the proposed ERF does not constitute an increase in total vehicle trip movements, but a redistribution and net reduction, as the facility reduces the total volume of waste sent to landfill. Furthermore, the proposed ERF will generate significantly lower traffic flows than the previous site use” - based on studies from 1991 when the site was a colliery, before MARR!
- PAIN has simply not been able to allocate sufficient resopurces for a comprehensive consideration of the traffic (and subsequent air pollution and safety) conbsiderations arising from veolia’s proposals. PAIN recognises that some or all of our initial concerns may be addressed withion the documentation that accompanies the application. Some of the issues raised by members include the following points: The figures supplied were reviewed by a traffic officers who expressed concern that the detailed information regarding 'lorries' is not sufficiently quantified, and underlying assumptions have not been supplied in sufficient detail, to make a proper assessment of likely impacts of the proposals. He commented that a lorry can be anything that is classified as a load bearing vehicle strictly for the carriage of goods not passengers. This can include anything from a small transit pickup right through to a 38 tonne artic. The main planning documents do not appear to specify the type, weight or containment of the vehicles to be used to assess the following:
  1) Weight on the road
  2) Size of vehicle
  3) Type of vehicle
  4) Fuel type i.e. petrol or diesel.
  5) Vehicle boxed secure load or open top.

- Further clarification is therefore sought regarding the detailed nature of vehicular movements associated with the proposals.
- The land is thought to be unstable, as evidenced by the recent collapse of an underground coal mining ‘roadway’, causing damp problems on nearby properties (including farmland owned by Tom King). This exacerbates the risks to the aquifer / groundwater located beneath the proposed site. Yet the application states: “6.47 The site contains no known mine shafts or adits and site investigations have shown the ground stability to be reasonable.”
- Dangers to nearby wildlife habitats and threatened species appear inadequate. Proximity to local Nature Reserve and Sites of Special Scientific Interest pose threats to wildlife and their fragile and unique habitats, including nightjar nesting sites, etc. Nottinghamshire County Councils website describes Rainworth Water LNR as a "Hidden Gem for those wishing discover a quiet wilderness", it mentions The Chiff Chaff and the Dingy Skipper butterfly, also Dragonflies and Damselflies. This area also shares its boundary with the former Car park site. What will stop the Frogs, Lizards, and Great Crested Newts, Badgers, Foxes etc. from wandering from their protected areas on to the Incinerator site? or onto the busy road?
- No reliable data on particulate emissions of 2.5 microns or under has been given, therefore the potential health impact of this component of stack emissions cannot be determined. Air quality assessment does not provide detail of non-standard operating conditions, or non-standard meteorological conditions such as temperature inversion. Assessment methodology used is poor at recognising cumulative impacts, which may have serious implications for a small numbers of receptors.
- The application claims to displace the need to consult with residents regarding replacing the County’s outdated waste strategy [5.25 "The Municipal Waste Management Strategy for Nottinghamshire (MWMS) was approved in 2001. This has effectively however been replaced by the provisions of the PFI contract for waste management services" - a contract signed without public consultation, and without even the agreement of the Waste Collecting Authorities - see note 3]. Indeed, the “extensive consultation” on the incinerator plans repeatedly promised by NCC (following receipt of a petition signed by more than 4,300 local residents) failed to materialise.
- Despite repeated requests, and against the Aarhus Agreement and contrary to an important relevant Information Commissioner ruling, NCC has withheld from the public vital elements of the Waste PFI contract, including all of the contracts’ key performance indicators.
- The development, and the lack of consultation, have sparked significant controversy locally and regionally, resulting in local residents joining together to form Mansfield Against Incineration (MAIN) then People Against Incineration (PAIN), and then working with others opposed to waste incineration to form a national anti-incineration network known as UK Without Incineration Network (UKWIN).

- The application is strongly opposed by local people who are concerned about potential health risks. It is worth noting that public concern is a material planning consideration and has in part led to previous applications [for waste incinerators] being refused (e.g. Kidderminster). Public concern founded upon valid planning reasons can be taken into account when considering a planning application. These community concerns have been repeatedly put to Nottinghamshire County Council officers, and they have repeatedly failed to be addressed. The public has not been reassured that their concerns have been considered over the past three years, and are sceptical that their full range of concerns will be treated seriously as part of the planning process (despite promises made by NCC's Malvin Trigg that all of the community's concerns will be taken into account as part of the planning consultation).
- Local residents feel especially vulnerable to air-borne particles as a legacy of the area's coal mining past. Incidents of respiratory problems are higher than average.
- No decommissioning assessment has been included in the planning application at all, contrary to requirements detailed in the EU Directive (Annex III) INFORMATION REFERRED TO IN ARTICLE 5 (1)
- Veolia site assessment exercise only considers alternative sites for incineration, rather than alternative waste management options.
- The assessment of environmental impacts does not consider resource use questions. The impact of the proposal in terms of the production economy is not addressed.
- Nottinghamshire County Council (NCC) is working in partnership with the applicants on this very project. Nottinghamshire County Council shares the planning risk with the applicant (see p. 41 of NCC's Final Business Case: "Planning risk on the ERF will be shared between the Council and Veolia...". Nottinghamshire County Council (NCC) should not be considering this application at all. It is equivalent to deciding on their own application. NCC Councillors voted 'unanimously' (according to Malvin Trigg) for the incinerator / PFI, including (presumably) all members of the Planning Committee - does this constitute a prejudicial interest?
- This point is strengthened by the partnership formed by NCC and Veolia (to handle their joint contract), and the joint advertising campaigns that associate the name of Veolia with the reputation of the County Council (including Veolia's use of NCC colours and logo for promotional material sent to Rainworth residents). (see correspondence with Malvin Trigg: "With respect to your comments on the use of Nottinghamshire County Council's logo I understand that you are aware that the Council has endorsed the appointment of Veolia as the County Council's waste partner for the next 27 years... It is therefore, entirely appropriate that Veolia use the County Councils logo on all public facing material with respect to this contract. I therefore completely reject your comment that the use of the logo was in someway unfair and misleading. It in fact confirms the partnership approach the County Council and Veolia are taking with respect to this contract").
    - Even if Planning Officers are able to separate NCC's partnership with Veolia and the Planning Authority's duty to carefully scrutinise any planning application, elected members appear to be prejudiced in favour of granting planning permission to the proposed waste

incinerator. Councillors are well aware of the potential financial penalties to be incurred by the County Council, and although this is not a material planning consideration, it is of clear concern to elected members, and they should therefore not be empowered to decide this application.

- Excerpt from Nottinghamshire Joint [Waste] Officers Board meeting 23/11/05: 4.0 Partnering Agreement: "Malvin Trigg advised the front page of the Project had now been forwarded to the WCA's legal representatives. Mick Allen confirmed Sharpe Pritchard were at the present time working to provide a sanitised version of the full document to the WCA's legal representatives by the end of next week…CBr (Craig Bonnar of MDC) advised a sanitised version of the Partnering Agreement (PA) would not be sufficient as all WCA's need to read and be satisfied with the terms of the PFI Contract, technical specifications are also required for the schedules. Mick Allen advised Onyx were very cautious of issuing the full version of the PA due to issues of confidentiality. **Mick Allen confirmed that NCC would be signing the PFI Contract regardless of whether the back to back agreement with the WCA's was signed**…

PAIN is disturbed by the way the Waste PFI contracts were negotiated, especially the lack of opportunity for input from the very people who are expected to supply and sort the discarded materials, and to pay for the whole system! By rights we should have been consulted, and we should have been able to influence the decisions being made on our behalf. We do not want our waste burning anywhere. We want to see more effort made to reduce, reuse, recycle. We want all of the County's food waste to be anaerobically digested. We see the proposed incinerator as a Commercial and industrial waste facility that will accept household waste. It will not be a household waste incinerator (because at 180,000 tonnes per annum it is over-sized in relation to residual household waste arising), so it should not be paid for through public funding! And if there is any profit to be made from our discarded materials, this money should be ploughed back in to the communities who supply the capital, the labour, and the material!