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Environment Agency

Our ref: DC/2010/107090/05-L01
Your ref: sp/dcc/2975/2010

Date: 01 July 2011

Devon County Council
Planning Control
County Hall Topsham Road
Exeter
Devon
EX2 4QW

Dear Sir/Madam

DEVELOPMENT OF THE NEW ENGLAND RESOURCE RECOVERY CENTRE NEAR LEE MILL, TO INCLUDE AN ENERGY FROM WASTE FACILITY WITH A CAPACITY OF 275,000 TONNES PER ANNUM OF RESIDUAL MUNICIPAL SOLID WASTE AND COMMERICAL AND INDUSTRIAL WASTE WITH BOTTOM ASH RECYCLING, A NON HAZARDOUS LANDFILL; AND ASSOCIATED VISITOR CENTRE, ANCILLARY OFFICES, WELFARE, PARKING FACILITIES, DUAL WEIGHBRIDGE/WHEEL WASH; ALSO NEW ACCESS ROAD LINKING INTO A38 AT LEE MILL WITH NEW RIVER CROSSING OVER RIVER YEALM AND ASSOCIATED AFTERCARE AND LANDSCAPING IMPROVEMENTS ACROSS THE WHOLE SITE WITH ASSOCIATED WOODLAND MANAGEMENT PLAN.
NEW ENGLAND QUARRY. LEE MILL.

Thank you for your consultation in respect of the above proposal.

Environment Agency Position
We recommend that your Authority delays determining this application because it has not been shown that the loss of wet woodland (a Biodiversity Action Plan (BAP) priority habitat), which would result from this proposal, can be appropriately compensated. The Environmental Statement has shown that the total loss of wet woodland amounts to 0.5ha. We therefore recommend that this application is not determined until the applicant has supplied information to demonstrate that the proposed compensation is viable.

Once this information is received we would be in a position to recommend a condition to ensure the loss of wet woodland will be compensated for by creating like for like habitat along with other biodiversity related comments. We consider that without this information such a condition may not presently meet the tests set out in Circular 11/95.

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Customer services line: 08708 506 506
Email: enquiries@environment-agency.gov.uk
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Provided that these issues can be adequately addressed through the submission of further information we would also wish to recommend conditions relating to flood risk.

With regard to the Sequential Test, we note that you have concluded that the proposal fails the Test because there are other sites at lower flood risk where the proposed development could be located. This would normally be sufficient basis for the refusal of the planning application. Whilst we would not wish to object to the application on this basis, if you are minded to grant the application, we recommend that for transparency and the sake of due process you provide a clear justification of the other material considerations which you consider outweigh flood risk in this instance.

Our detailed comments on biodiversity and fisheries, flood risk and groundwater and contaminated land are provided within the technical appendix.

Reasons – biodiversity

The UK BAP 1994 identifies certain species and habitats as being of 'principal' importance" for the conservation of biodiversity, also listed for England under s41 of the Natural Environment and Rural Communities Act 2006 (NERC). Action is now required to halt the acknowledged loss of biodiversity in the UK.

In this instance, the proposed development will have a detrimental impact on a habitat which is listed as a BAP priority species that the Environment Agency has a role in protecting. Whilst the updated Environmental Statement has largely addressed the biodiversity issues of concern raised in our letter to DCC in May 2010 and our response to the regulation 19 consultation, we consider that insufficient evidence has been provided on the physical and hydrological conditions of the proposed wet woodland compensation sites.

We also remain concerned with the apparent uncertainties with regard to the Ancient Semi Natural Woodland status of compartment 1a and consequent loss of this wet woodland habitat and advise that this is clarified further with Natural England.

Yours faithfully

S P Maddison

Mr Steve Maddison
Team Leader Planning Liaison

Direct dial : 01392 316073
Direct e-mail steve.maddison@environment-agency.gov.uk

cc Julian Fry, Viridor, SLR Consulting Ltd

TECHNICAL APPENDIX

BIODIVERSITY AND FISHERIES

The overall impacts arising from the construction of the access road are significant in terms of biodiversity and policy. The woodland is both designated as County Wildlife Site and Ancient woodland and there are local, regional and national policies to protect such sites. Direct loss of habitat and fragmentation are inevitable with this development and Devon County Council need to acknowledge and implement their NERC duties to ensure protection of this site.

The river Yealm is a sensitive environment supporting important resident and migratory fisheries and abundant aquatic flora and fauna. Although the applicant has demonstrated that the risk of harm to the river is unlikely the consequences of any impact would be highly damaging. The close proximity of the development site to the river Yealm is of concern.

It is imperative that water quality within the River Yealm, ground water and surface water is maintained at the highest standards. This proposal has the potential to harm the aquatic ecology within the River Yealm, during both construction and operation. The stipulation of pollution control measures and stringent monitoring is therefore paramount.

The ES states that there will be a number of management and/or monitoring plans prepared for the various habitats and species across the site. These need to be firmly established as **conditions** within the planning permission to satisfy us that the information submitted in the EIA is implemented.

The Environmental Statement (ES) states that full details of habitat creation, monitoring and management will be provided in the '**Ecological, Mitigation and Management Plan'** prior to commencing development. We would like to be consulted on this prior to any works taking place to ensure our issues of concern are adequately addressed.

The Environment Agency remit focuses on water and wetland habitats and species and therefore, with regard *to the woodland habitat our comments relate* to wet woodland habitat.

The ES states that there are 3 locations where there are losses of wet woodland (0.18ha from 1a, 0.01ha from 2b and 0.31 ha from 5e) amounting to 0.5ha (table 2/1 of technical appendix 12-17 Ecological Clarification, June 2011 incorrectly states 0.46ha). The Environment Agency position on any loss of wet woodland from development in relation to ancient woodland and BAP is stated in the 2 points below:

1. Any loss of wet woodland that is also Ancient Woodland, Semi Natural Ancient Woodland or a Planted Ancient Woodland Site is contrary to PPS9 *(Planning Policy statement on Biodiversity and Geological Conservation)*and the development should not be given Planning Permission. PPS 9 paragraph 10 which is specific to ancient woodland states that planning permission should not be granted *"for any development that would result in its loss or deterioration unless the need for, and benefits of, the development in that location outweigh the loss of the woodland*

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habitat". We consider that the location for the access route is unacceptable and that there are alternatives.

The construction of the access road would result in the loss of 0.18ha of wet woodland within compartment 1a. The ES now recommends the removal of compartment 1a as Ancient Semi-Natural Woodland. We consider that there remain uncertainties on the ASNW status of compartment 1a following a recent report produced by Laura Gore, an ecologist on secondment to DCC from Jacobs.

We recommend that the Ancient Woodland status of this compartment is assessed by an independent Ancient Woodland specialist and that Natural England advise on its status

2. Any loss of wet woodland that is not Ancient Woodland is a UK priority BAP habitat and the developer must incorporate appropriate habitat compensation. This is discussed below:

Wet woodland compensation

The development application correctly identifies the need for wet woodland recreation to compensate for the 0.5ha being lost from the development of the access road. Our Regulation 19 response raised concerns about the viability of the proposed wet woodland compensation area. We stated that there was a need to identify a clear hydrological regime to satisfy us that the site could support wet woodland. Technical appendix 12-17 Ecological Clarification now proposes 2 locations for wet woodland creation.

In general, we are supportive of the proposed habitat mosaic of wet woodland, dry woodland, marshy grassland and scrub within the 2 northern fields at the north of the site, and for the site south of Strashleigh Hams. However we have a fundamental concern with a key aspect. There is little evidence within the report to confirm that there are the correct hydrological conditions for wet woodland habitat. **It is for this reason we are recommending that this planning application is not yet determined.** Fluvial flooding is highly unlikely. The soft rush is not necessarily an indicator of wetland conditions. It could also indicate perched compacted ground with impeded drainage where conditions fluctuate with wetting and drying. Further investigations on both sites are required to demonstrate that they can provide physical and hydrological conditions for the maintenance of a wet woodland.

It is worth noting that the report states that the northern most field is 'highly' improved agricultural pasture – the botanical description (rushes, orchids) indicates that there is a degree of unimproved wet pasture which should not be lost to an alternative habitat type. The mosaic of habitats in this area needs to be carefully designed to ensure that the unimproved wet pasture habitat is enhanced rather than lost.

The Habitat Mitigation, Compensation and Enhancements DWG No. 12/3 identifies '*the potential to use top-soils removed from similar habitats during construction of the access road to preserve the seedbank*'. This is not stated within the main Updated Ecology (section 12) report or within the Invertebrate Mitigation strategy (Appendix 12-14) but is important for both the translocation of the seedbank, mycorrhiza and for the invertebrates. The site and its hydrological regime needs to be established early

within the development to ensure that faunal species can be translocated successfully.

Other woodland comments:
With regards to compartment 1b (NVC W7/W9 wet woodland and ASNW) the technical appendix 12-17 Ecological Clarification now confirms that the road will not encroach upon the mature wet woodland habitats within this section. This compartment needs to be fenced off to ensure that the working corridor does not encroach and impact these habitats

It is unclear if the calculation for habitat loss resulting from the access road takes account of any additional needs such as creating passing places, a hard shoulder, and a drainage channel in addition to the working corridor needed for construction.

Management of remaining areas of wet woodland:
There will potentially be hydrological impacts to the remaining wet woodland habitat. The ES states that the *"construction of the access road may have localised effects in compartments 1a and 5e"* and the FRA states "*It is considered likely that some sections of the proposed site access road within the wet woodland may require the input of culverts to maintain flow though various minor drainage channels. Detailed analysis will be undertaken to identify those areas where this may be applicable as part of the detailed design phase*". This is in reference to section 1a and needs to be confirmed before the road is constructed to avoid adverse impacts on the wet woodland during and post construction. This needs to also be firmly established in the Woodland Management Plan (referred to as Southwood Management Plan but includes all woodland areas), which at present has no management measures for ensuring the correct hydrological conditions for wet woodland.

3.92 ha of retained wet woodland habitat is stated to be brought into long term appropriate management and 1 ha of plantation woodland is stated to be restored. These areas need to be clearly identified on a map and the methodologies and actions for achieving this need to be covered in the Woodland Management Plan.

We acknowledge that dewatering the quarry void would not impact on the retained wet woodland habitat. However, we advise that through the Woodland Management Plan, the ground water of the wet woodland is monitored, i.e. with dipwells to ensure the correct hydrological conditions exist.

We consider that a **condition** needs to be included on the Planning Permission that the Woodland Management Plan will be revised and updated. We will provide our recommended wording for this condition when we are reconsulted.

Fisheries
It is imperative that water quality within the River Yealm, ground water and surface water is maintained at the highest standards. This proposal has the potential to harm the aquatic ecology within the River Yealm, during both construction and operation. The stipulation of pollution control measures and stringent monitoring is therefore paramount.

There is a risk of silt impacting salmonid spawning beds during construction. We consider the need for silt traps to be located within the water course on riffles during construction. This will detect if silt is affecting spawning gravels. The ES proposes turbidity monitoring but this will not identify silt that drops out of the water column and

settles. Silt traps should be addressed in the Construction Environment Management Plan.

The ES proposed mitigation for fisheries within the River Yealm states that piling works should avoid the autumn time of year (as vibrations may cause impacts to spawning salmonids). The APEM Aquatic Ecology Survey report identifies suitable salmonid spawning habitat in the river location of the proposed bridge. Piling activity and associated vibrations can have adverse effects on both salmonid eggs and alevins. Therefore we would request that a **condition** is included on subsequent planning permission stipulating that piling works will not take place between October and April inclusive. We will provide our recommended wording for this condition when we are reconsulted.

The water temperature discharge from the void to the river should be no more than 2 degrees different (/-) from the natural river temperature. The report states that the void water temperature will not be more than 25 degrees when discharged. This is not sufficient to protect fisheries interests. We would therefore request a **condition** stating this point, the wording for which we will provide when we are reconsulted.

Aquatic ecological monitoring

We welcome the commissioning of the biological baseline monitoring (invertebrates, diatoms, macrophytes and fish) as a decline in a particular species can indicate an impact that may not be picked up by chemical monitoring. We are satisfied that the monitoring carried out to date is progressing towards an adequate baseline and we also appreciate that access permission has now been given for the recommended sites.

We consider and request that the aquatic monitoring is **conditioned** and incorporated in the Ecological, Mitigation and Management Plan. This Management Plan needs to establish trigger levels to provide an alert that the ecology is being impacted. We will provide our recommended wording for such a condition when we are reconsulted.

There is also a need for the Management Plan to have a strategy of action to be put in place if impacts are identified. We acknowledge that these trigger levels can not be set until a full baseline set of results is available however, we would consider a significantly sustained reduction in densities (which takes into account natural fluctuations) would be an appropriate trigger.

Ground water, Hydrology and hydrogeology

The hydrology and hydrogeology report identifies a potential impact to New England Fields County Wildlife Site from dewatering the quarry void. This site is designated for its important marshy grassland habitat and the potential impact is likely to draw down the groundwater levels. The data in Appendix 9-11 indicates that a significant effect is unlikely. However we consider that there is a need for the proposed Management Plan for New England Fields to include groundwater monitoring which should be carried out before, during and for 3 years after, dewatering the quarry void. This data will help inform how the site should be managed, in terms of ground water availability.

Any potential adverse hydrological impacts to the marshy grassland habitat are considered reversible and methods should be adopted to ensure favourable

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management of marshy grassland on this site. Fen Meadow is a priority Devon BAP habitat and the site should be managed to maintain, enhance and restore this habitat despite natural succession.

Standing Water
The updated ecology report makes reference to the small pond in the north of Challonsleigh plantation. There is no further mention of the pond within the report and we are unclear if it is to be incorporated in the Woodland Management Plan. Being heavily encroached by scrub it is likely that this pond is drying up and may require intermittent maintenance. Maintaining this pond will help compensate for the loss of the quarry void and should not be lost.

Surface Water Management and Attenuation Ponds
The Surface Water Management Plan states that '*all attenuation features will be constructed progressively in line with site construction activities*'. These ponds must be established early within the construction phase to ensure that they establish as suitable habitat before the loss of quarry void and translocation of wildlife (i.e. amphibians and invertebrates). We advise that the slope of the attenuation ponds is no steeper than 1:3 and that the angle of slope varies (1:4) around the ponds.

The flow from the attenuation ponds into the river should be within a naturalised channel (not piped) which will function as a watercourse and niche for wildlife. They should be designed to allow for marginal vegetation to establish at the edges and should have an appropriate substrate for invertebrates.

Soft engineering options should be considered for discharging the attenuation pond flow to the river. This is to reduce the need for man-made structures next to the river. Any headwall must be set well back from the receiving watercourse.

CEMP
A condition is required to ensure that no construction work shall start until a Construction Environment Management Plan (CEMP) has been drafted, including a statutory Site Waste Management Plan. . See PPG 5 and 6.
http://www.environment-agency.gov.uk/business/topics/pollution/39083.aspx

Invertebrates
The ES identifies the invertebrate interest of the site as being of Regional Importance and that there is likely to be some unavoidable residual negative impacts on certain receptors. It has been difficult to quantify the loss of invertebrates from the lake margins/other water courses and therefore be confident that the sufficient mitigation and compensation has been proposed.

The invertebrate report states that bankside substrate around the base of the river crossing and underneath the river crossing will be covered in shingle to provide habitat for invertebrate river shingle beetles. There is no information about exactly where this will go and we have concerns that it will be washed away and not replaced by natural proposes. We therefore question whether there is adequate invertebrate compensation within the proposal application. In addition, there is a risk that this gravel, once in the water course, could impact fisheries spawning gravels. This detail needs to be addressed within the Flood Defence application.

Geomorphology and mature trees adjacent to the river

We note that at one location the access road is within 4-6m of the river. The geomorphology report states that the river bank is stable at this location however, it is lined with mature trees with extensive root systems. We are concerned of the potential impact to these trees as they are an important wildlife corridor for a number of species including bats. By having the road as a single carriageway at this location would reduce the risk to the trees and we advise that this is considered.

Whilst the geomorphology report states that the river bank is stable and that there is no need for river bank engineering, rivers are dynamic and allowance needs to be made for future natural stream adjustment.

In addition, we note that this location is included as part of the wet woodland compensation. The engineering for the road will thus need to allow for this habitat to form.

The recommendations from the geomorphology report identifies the need for the Woodland Management Plan to deal with mature trees which have naturally fallen across the river channel, upstream from the bridge crossing. Fallen trees are a natural part of river habitats and form niche habitats for a variety of fish and invertebrates. Whilst potentially changing the hydromorphology of a river, the decision to remove a tree should only be given if that tree provides a high risk of causing an impact to the bridge.

DEVELOPMENT AND FLOOD RISK

Drawings FRA 1 - 5 show the extent of flood zones.

A more appropriate starting point might be a Manning's range of 0.05 - 0.08 for the main channel, this is based on research into the variability in Manning's n values using different estimation techniques and directly measured methods. Manning's n on tributaries may be higher due to the large amount of woody debris. We note however that increases in the order of 200 – 300 mm were observed in the sensitivity analysis. We therefore recommend that results for the increased manning's n are presented to define flood extent and hazard. FRA5 would appear to be the best representation of the 100 year event taking into account the sensitivity analysis (not the 1000 year as shown on the drawing).

The flood zone can be defined as being predominately functioning flood plain with an extent shown in FRA4, equally FRA5 indicates the area that will function as floodplain during more severe events. However, we accept the flood risk assessment's conclusion that the road and bridge can be built with no detrimental impacts to flood storage or conveyance. It should be noted, however that further detailed design will be necessary and there will be on-going maintenance and habitat loss implications.

The proposed road is shown to be very close to the banks of the river Yealm in one location. This will prevent future natural adjustment in the course of the river and will probably need hard engineering to prevent erosion. Sustainable Drainage ponds are proposed within the functional flood zone. These will need to be designed so that there is no land raising. Impermeable lining of the ponds will be needed to present groundwater ingress. It appears possible that with storm water storage within the road collection systems, along with water management ditches and the proposed

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ponds a suitable surface water management scheme can be designed.

To mitigate loss of flood plain habitat it may be possible to carry out landscaping works on the left bank (east) just downstream of the A30 road bridge. However, this may need an adjustment to the application boundary.

The proposals indicate that a surface water drainage system that mimics greenfield flow can be achieved. This will require further detailed design. In particular measures should be taken to reduce pollution risk by setting the discharge headwalls well away from the receiving watercourse allowing settlement of silt and bio-degradation of oils in reed bed and informal wetland streams.

We will be advising that the details of the main river bridge and the surface water management scheme should be covered by appropriate planning conditions. We can provide suitable wording for such conditions when we are reconsulted.

GROUNDWATER AND CONTAMINATED LAND

The Environment Agency is satisfied that the applicant has complied with the requirements of PPS10: Planning for Sustainable Waste Management regarding the location of new landfill developments.

The applicant has submitted an appropriate hydrogeological risk assessment (HRA) that assesses the proximity to water sources and the geological/hydrogeological conditions in the area. The risk assessment demonstrates for planning purposes that the landfill development will not have an unacceptable impact upon water resources. The applicant has demonstrated that groundwater beneath the site does not provide an important contribution to sensitive surface waters.

The hydrogeologcial risk assessment reflects guidance and best practice issued by the Environment Agency and DEFRA.

The applicant is correct in identifying that should the landfill gain planning permission, they will also require an Environmental Permit from the Environment Agency under the Environmental Permitting (England & Wales) Regulations 2010. The acceptance of the HRA for planning purposes in no way guarantees that the landfill will be authorised under an Environmental Permit. The granting of an Environmental Permit is dependent upon compliance with other legislation including the Environmental Permitting (England & Wales) Regulations 2010 and the Landfill (England & Wales) Regulations 2002.

End