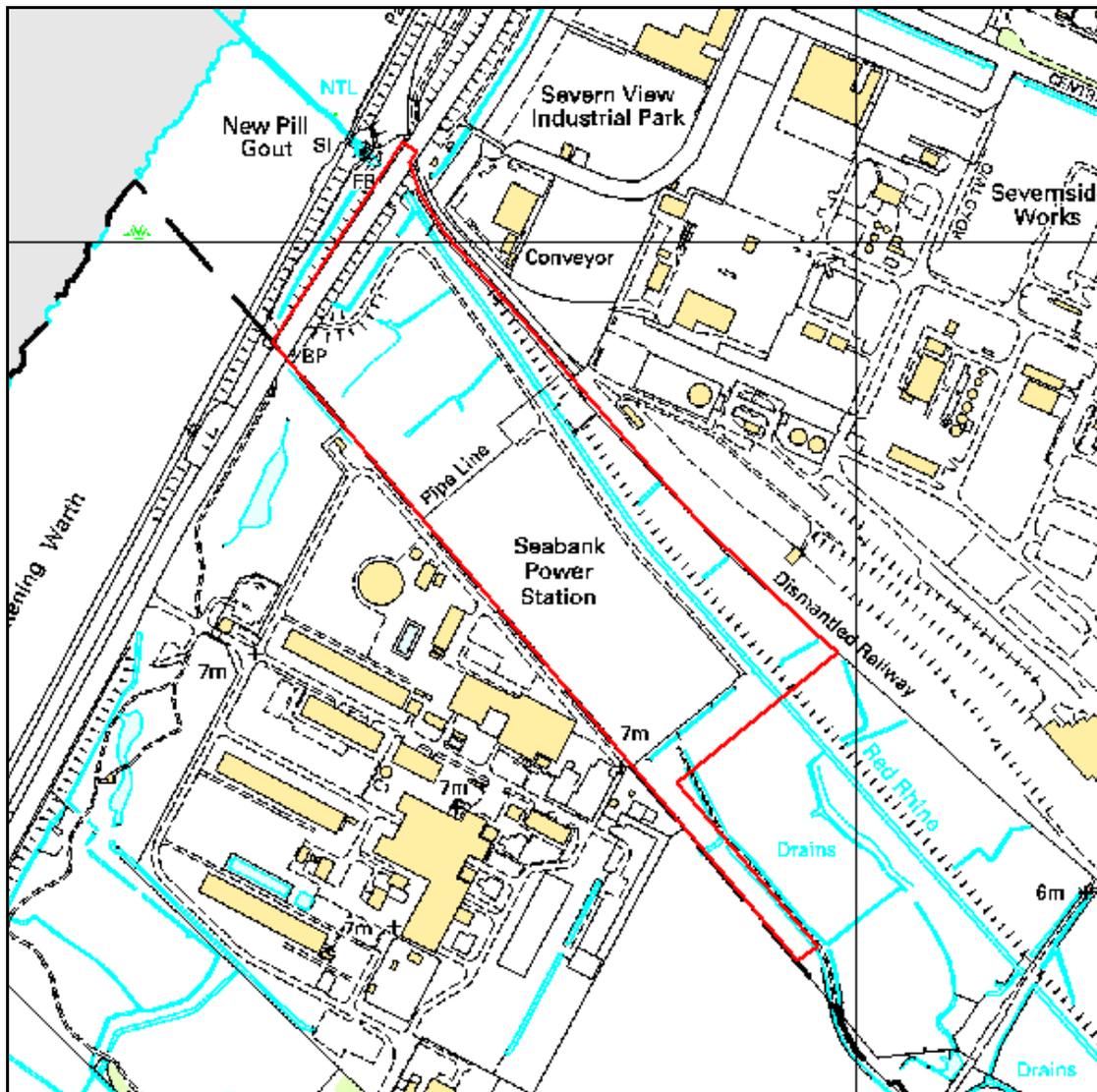


# Agenda Item 12

## DEVELOPMENT CONTROL (WEST) COMMITTEE – 24 JUNE 2010

<b>App No.:</b>	PT09/5982/F	<b>Applicant:</b>	SITA UK LTD
<b>Site:</b>	Land At Severnside Works Severn Road Hallen Bristol South Gloucestershire	<b>Date Reg:</b>	8th December 2009
<b>Proposal:</b>	Change of use of land for the construction of an Energy Recovery Centre for the thermal treatment of non hazardous waste and ancilliary development including new road and roundabout on A403 and new railhead. Erection of site office and visitor centre with associated works.	<b>Parish:</b>	Pilning And Severn Beach Parish Council
<b>Map Ref:</b>	354771 181326	<b>Ward:</b>	Pilning And Severn Beach
<b>Application Category:</b>		<b>Target Date:</b>	25th March 2010



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PT09/5982/F

By necessity, the following report is lengthy. To aid Members understanding of the issues and improve access to the relevant sections of the report an executive summary is provided below, ahead of the main report.

## **EXECUTIVE SUMMARY OF REPORT**

The following executive summary is provided as an overview of the application, the material issues and officer assessment, it is not a substitute to the full report itself and the relevant sections of the report in each case are referred to below:

### The Site

The application site covers an area of 10.2 hectares on partly previously developed land. The site is located within the area covered by the former ICI consents, thereby covered by policy designations E1 and E2 of the South Gloucestershire Local Plan (Adopted) January 2006. Further description of the site is contained within 'Proposals' section (para. 1.2), and thereafter referred to in the 'Landscape' section (paras 5.75 – 5.93).

### The Facility

The application proposes an Energy from Waste facility using existing commercial and industrial residual waste to produce steam that would subsequently be used to generate power. The facility would have the capacity to receive 400,000 tonnes of waste material per annum, spread over two separately functioning lines of 200,000 tonnes capacity. The development requirements for the site would include a main building to house the process, associated infrastructure, such as access and two stacks of 118 metres in height for emission dispersal. Further specific details of the facility are provided in the 'Proposals' sections (paras 1.1 – 1.5) and are further discussed in the 'Sustainability' consideration sections (paras 5.30 – 5.38).

### Summary of Key Material Considerations

- Principles of waste strategy and waste management within the context of European and National waste guidelines and planning guidance.
  
- Consideration of both the strategic and specific development control issues associated with the provision of a site of this nature and the balance of weight to be attached to adopted and emerging development plans and assessment of any material implications that may arise
  
- Appropriateness of the location of the site for a waste use taking into account the nature of the area, historic permissions, policy designations and specific land identification
  
- Consideration of the nature of the facility proposed in context with current guidelines in terms of the technology used, sustainability principles and need assessment
  
- Assessment of environmental protection issues and pollution control criteria to be applied to the proposal
  
- Assessment of potential ecological impacts upon the adjacent Severn Estuary

- Assessment of the transportation impacts associated with the facility
- Assessment of the perceived landscape implications associated with the built form of the proposals within the context of the site and its surroundings

#### Summary of Assessment of Key Considerations

There is a clear recognised need for facilities to manage the existing and projected waste arisings within the West of England area. Policy advice is non-prescriptive in terms of choice of technology applied and each application must therefore be judged on its individual merits. It is considered that the site meets the relevant, broad locational principles of the relevant provisions and policy criteria for such proposals. The type of facility proposed, taking into account the requirements of the waste hierarchy, diversion from landfill, the generation of energy and the existence of further legislation to control emissions is considered acceptable in principle within the context of existing policy, for the purposes of land use planning consideration. The assessment of the principle of the proposal is set out in more detail in paragraphs 5.2 – 5.45 of the full report.

The planning process must in this instance run alongside the pollution control permitting process and decisions must be based upon the assumption that the relevant pollution control regime will be properly applied and enforced. In this instance the Environment Agency have raised no objection in principle to the type of facility on planning grounds and are considering an application for a permit. Discussion of the relevant pollution control requirements is contained in paragraph 5.46.

Concerns over flood risk assessment have been raised and further information and modelling has been submitted in response to this. The Environment Agency is currently considering this information. Any decision would therefore need to be subject to confirmation of acceptability of Flood Risk Assessment issues. Reference is made to this in the EA consultation response (para. 4.8), within the 'Environmental' considerations sections (para. 5.53) and in the recommendations.

Because of its proximity to the Severn Estuary (SPA, SAC, RAMSAR) the adequacy of the proposal in taking account of any ecological issues has to be assessed together with whether it provides for adequate mitigation and bio-diversity. Subject to mitigation, it is considered that the site is unlikely to have a significant impact and that appropriate assessment requirements of the Habitats Regulation can be met. This is further analysed in Natural England's consultation responses (para. 4.6) and the 'Ecology' section (paras 5.54 – 5.73) and subsequently referred to in the recommendations.

Prior archaeological work has been undertaken to the satisfaction of the Council, subject to further work upon any approval (paras 5.102 - 5.105).

Transportation issues have been assessed strategically by the Highways Agency and locally by the Council. The future use of the railhead would provide additional positive contribution to the use of the local highway network, however, the anticipated level and nature of traffic movements associated with the development are considered acceptable, even if this facility is not brought into use. Detailed provision of works to the access insofar as it affects the public highway would however have to be completed in agreement with the Council's requirements. These issues are addressed

in more detail in the 'Transportation' section of the report (paras 5.94 – 5.101).

The report acknowledges certain outstanding landscape concerns associated with the location, nature and scale of development, which remain, and which must therefore be taken into consideration. These concerns are considered in the 'Visual Amenity' section of the report (paras 5.75 – 5.93).

It is recommended that planning permission is granted, taking into account the outstanding landscape concerns, but also taking into account the positive policy considerations referred to. These considerations are outlined in more detail in Section 6 of the report.

## **INTRODUCTION**

This application has been referred to the Development Control (West) Committee by Councillor Peter Tyzack and Councillor Sheila Cook on the basis of concerns over the potential environmental impact of this proposal, especially given the chosen location adjacent to the Severn Estuary, and within range of the new Zoo being created at Easter Compton and the potential impact on the surrounding parishes. Taking the nature and scale of the proposal into account the proposals were also put to the Sites Inspection Sub- Committee. Members will recall that the site was visited on 22<sup>nd</sup> January 2010. As part of the further consideration of the proposals Members requested that a full report should address the following additional issues:

- The front sheet should be amended to read Severn Beach not Almondsbury Parish
- The full report should include information relating to the proportion/volume of waste coming to the plant generated from outside South Gloucestershire in order that the applicant's argument that local waste is being used to supply power to local businesses can be analysed.
- Full report should include full transportation comments in relation to the safety of the proposed roundabout access; and an assessment of the traffic movements/road capacity.
- Comments on the likelihood of a railhead coming forward to serve the site – and what weight can be given to this in the decision.
- Confirm whether EIA was submitted as part of application and whether it analysed the benefits of rail versus road.

## **1. THE PROPOSAL**

- 1.1 The application is for a 'Change of use of land for the construction of an Energy Recovery Centre for the thermal treatment of non hazardous waste and ancillary development including new road and roundabout on the A403 and new railhead. Erection of site office and visitor centre with associated works'. The proposals have been subject to the Screening and Scoping process as part of the Environmental Impact Assessment requirements for a site of this nature. The application has been submitted with a full Environmental Statement and also includes Flood Risk Assessment, Air Quality Assessment and Traffic Assessment and a Cumulative Impact Assessment.
- 1.2 The total site area is 10.2 hectares. The site is located on Severnside, bounded to the north and north east by the 'Severnside Works' (former Terra Nitrogen site), to the north west by the A403 Severn Road, to the west by Seabank Power station and to the south by Crooks Marsh. The site is currently accessed directly off the A403. The south west boundary of the site forms the administrative boundary with Bristol City Council. The Severn Estuary (SPA, SAC, RAMSAR) is located approximately 300 metres to the north west of the site across the A403 and across Chittening Warth. The nearest residential area is located at Severn Beach over 1km to the north, an isolated property also exists within the Severnside permission area, approximately 1km to the south east between the site and the gas works. A drainage ditch, known as the Red Rhine runs across the north east sector of the site.

- 1.3 The development would consist of an Energy Recovery Centre utilising a combustion process capable of dealing with 400,000 tonnes of waste per annum over two process lines each of 200,000 capacity. The proposal would deal with residual waste arisings. The residual waste stream typically consists of food contaminated packaging including papers, card, plastics and wood, industrial and commercial black bag collections, films and plastics, items or products with several types of material or different plastics that cannot be separated, i.e. items that would generally otherwise go to landfill. The process would involve thermal treatment and energy recovery, the delivered waste would be burned to provide heat and steam which would then be used to drive a turbine and generate electricity, energy would therefore be created from the process to be re-distributed into local networks. The plant operating at full capacity would generate 37MW of electricity and 31.5 MW would be exported to the National Grid. Operating at 400,000 input per annum the Energy Recovery Centre would produce around 240,000 MWh of electricity. The applicants state that this is sufficient to power the equivalent of 51,350 domestic consumers, i.e. households based on current consumption rates for South Gloucestershire households.
- 1.4 The various elements of the operation from waste reception and storage to combustion, to heat recovery to power generation and process control and monitoring as well as parking, offices and visitor centre would largely be housed within the main recovery centre building, however the associated infrastructure would also incorporate external access road providing a one way system for HGV's arriving at the site, weighbridge, hardstanding to the railway sidings, condensers and the stacks which release the emissions from the process and which would form the highest element of the proposal measuring 118 metres. The proposal would incorporate twin stacks located immediately adjacent to each other, each measuring approximately 4 metres wide. The height of the stacks is a result of the necessity to be able to meet stringent environmental controls for the purposes of dispersal of any emissions. The main building itself incorporates a stepped roof design culminating with the highest stepped point in the centre of the building, housing the furnace and boilers, which would be approximately 46 metres in height at its apex. The design also incorporates a smooth curved roof to the north elevation and a straighter, more angled finish to the southern elevation.
- 1.5 It is proposed that the facility would potentially operate and treat waste 24 hours a day, the thermal process itself will be continuous. It is anticipated that there would be approximately 158 deliveries of waste per day on the basis of a fully operational facility with the two process lines running simultaneously. In addition to this other vehicle movements would be necessary for the operation of the site including deliveries of non-waste product necessary to facilitate the process and removals of ash. These are likely to amount to an additional 22 trips per day. The site would also generate private car movements for 31 staff, although these will be somewhat irregular in terms of times as the shift patterns would not reflect normal peak hours. Highway access to the site would be from a new section of road, (also forming part of this application) which incorporates a roundabout to the A403, approximately 400 metres to the south of Central Avenue. It is also proposed to construct a hardstanding next to the existing rail sidings. This will facilitate the use of the rail sidings to which a right of access

exists for the importation of waste by rail.

- 1.6 Publicity and public/stakeholder engagement has been undertaken and has included letters to identified stakeholders and members of the public widely distributed newsletters, website, feedback opportunities through dedicated e-mail, phone numbers and freepost address, media packs to communicate through the local media, press releases and adverts for exhibition dates, several public exhibitions and briefings.

## **2. POLICY CONTEXT**

### 2.1 National Guidance

PPS1 Delivering Sustainable Development  
PPS1 Supplement Planning and Climate Change  
PPS5 Planning for the Historic Environment  
PPS9 Biodiversity and Geological Conservation  
PPS10 Planning for Sustainable Waste Management  
PPS22 Renewable Energy  
PPS23 Planning and Pollution Control  
PPS25 Development and Flood Risk

### 2.2 Development Plans

#### Joint Replacement Structure Plan

Policy 2 Locational Strategy  
Policy 14 Avonmouth/Sevenside  
Policy 18 Nature Conservation  
Policy 25 Renewable Energy  
Policy 29 Waste Management

#### South Gloucestershire Minerals and Waste Local Plan

Policy 6 Landscape Protection  
Policy 10 Coastal Zone  
Policy 11 Forest of Avon  
Policy 12 Nature Conservation (a) – International Sites  
Policy 13 Nature Conservation (b) – National Sites  
Policy 14 Nature Conservation (c) – Local Sites and the South Gloucestershire Network  
Policy 15 Protected Species  
Policy 18 Archaeology  
Policy 21 Flood Risk  
Policy 22 Residential Amenity  
Policy 24 Traffic Impact  
Policy 25 Alternative Transport Modes  
Policy 36 Waste Hierarchy  
Policy 41 Energy From Waste

#### South Gloucestershire Local Plan (Adopted) January 2006

D1 Design  
L1 Landscape Protection and Enhancement  
L3 Coastal Zone

L6 Sites of International Nature Conservation Interest  
L7 Sites of National Nature Conservation Interest  
L8 Sites of Regional and Local Nature Conservation Interest  
L9 Species Protection  
L11 Archaeology  
E1 Proposed Site for Employment Use  
E2 Severnside  
EP1 Environmental Pollution  
EP2 Flood Risk and Development  
T12 Transportation Development Control Policy for New Development

#### Emerging Plans

West of England Partnership Joint Waste Core Strategy  
South Gloucestershire Core Strategy

- 2.3 Supplementary Planning Guidance  
South Gloucestershire Landscape Character Assessment  
Archaeology and Planning in the North Avon Levels

### **3. RELEVANT PLANNING HISTORY**

- 3.1 P91/1590 – Electricity Generation Station. Withdrawn November 1998.

### **4. CONSULTATION RESPONSES**

Below are summaries of the consultation replies received up to the drafting of this report. Other responses received will be incorporated as part of the full report to Committee:

#### 4.1 Almondsbury Parish Council

The Parish strongly objects to this application on several grounds:

- the fall out from the site and the long term effect it could have on the surrounding area is unknown
- the influx of this type of site within a small area, taking into account a further application for a similar site just across the boundary in Bristol and consent for In-Vessel composting at Willow Farm, near Hallen.
- The waste is from other areas not just South Gloucestershire
- The impact of the traffic on neighbouring parishes already suffering 2500 commercial vehicles per day using the B4055

#### 4.2 Other Consultees:

##### South West Regional Development Agency

The SWRDA supports the proposal as it holds potential to support more sustainable waste management practices and support to the environmental technology sector of the economy and contributing to the aims of the Regional Economic Strategy through promotion of successful environmental technology in the area. It is important for such facilities to operate in accordance with the waste hierarchy, through managing residual wastes which are not otherwise recyclable, the facilities inputs should also be sourced and delivered in the most sustainable manner and the plant should deliver the most energy efficient outputs.

4.3 The Highways Agency

The Agency finds the impact illustrated from the proposed Energy Recovery Centre upon the Strategic Road Network acceptable. A condition to include a construction management plan should also be incorporated.

4.4 Bristol City Council

Bristol City Council initially provided what they have termed a holding response. Bristol City Council also has a similar application in the system and it was their original intention to review and report upon both items concurrently.

Subsequently however a further response has been received indicating that Bristol City Council object to the proposal on the basis of the proposed development not significantly meeting Combined Heat and Power (CHP) recovery objectives and was not a realistic proposition as the site is not near any large scale residential developments, and there is a lack of demonstrable need provided for the waste facility when considered cumulatively with the proposed Viridor scheme, and concern over issues relating to traffic movements and negative impact upon the environment of the Bristol area. The application for a Resource Recovery Centre, submitted by Viridor to Bristol City Council has since been refused at committee and a notice of refusal stating the reasons is pending.

4.5 Gloucestershire County Council

Consider the proposal will meet many sustainability objectives by managing waste in a process further up the waste hierarchy and also by management within its own area rather than unsustainable transport of waste further afield. The authority also recognises that a significant proportion of the C and I waste produced within the West of England region is transported to landfills within Gloucestershire. This application would provide the opportunity for the West of England to become more self sufficient and reduce the pressure on landfills within Gloucestershire.

4.6 Natural England

Recognises the need for more efficient waste management within the West of England sub region, not least through diversion of waste to landfill. However Natural England does have concern about the site and application details and objects to the application on the following grounds:

Joint Waste Core Strategy

- A number of sites have been identified in the Avonmouth/Severnside area, and consideration should be given to the most appropriate for the technologies proposed. The pre-submission JWCS provides clear direction with respect to capacity within the various zones, with an indicative capacity requirement for the Avonmouth/Severnside area of 390,000 tonnes per annum. The current proposal along with other sites in the Bristol area, including some that have been approved, would exceed this figure. The concern being over provision may lead to importation from outside the sub region or an adverse impact upon the natural environment.

Cumulative Impacts

Contrary to the requirements of the EIA regulations, the submission does not

consider cumulative impacts with respect to other sites or projects within the vicinity. This is considered to be an essential element of the assessment process.

#### Potential Impacts upon the Severn Estuary

##### Air Quality:

The air quality modelling provided concludes that there are 'no likely significant effect'. The Environment Agency is the Relevant Authority under the Habitats Regulations, responsible for issuing Environmental Permits. Natural England reserves definitive comments as part of the statutory consultation process when assessing the Environmental Permit application.

##### Ground and Water Contamination and Nature Conservation:

It is considered that the conclusions and recommendations set out in the Land Quality Desk Study, which state the overall site risk classification as medium to high is appropriate for this site taking into account implications relating to flooding and surface water and adverse affects on the Severn Estuary. The study states that no ground investigation or soil quality data was available and that a full assessment of risks would be required prior to development through intrusive investigation to assess the contaminate status of the soils and the shallow groundwater in relation to potential source. Such investigation would allow assessment of the geotechnical properties with regard to foundation design parameters for any future development.

It is not in this respect considered possible to reasonably conclude that the proposed mitigation measures will address concerns regarding water resources or result in a 'de-minimus' impact upon the protected site, as stated in the planning application.

##### Disturbance to birds using Severn Estuary European Site:

Disturbance has only been considered in terms of noise and light. Given that the proposal is in such close proximity to the Severn Estuary, and also given that part of the proposal involves construction of a new roundabout on the A430, directly adjacent to the Chittening Warth foreshore it is considered that the effects resulting from human presence should be adequately addressed. There is evidence to suggest many bird species are less sensitive to noise when it is more regular, the presence of people is more likely to disturb birds and limit opportunities for feeding and roosting. It is not considered that the effects of human presence have therefore been adequately addressed.

##### Habitat Regulations Assessment:

The application concludes that the proposal would have no likely significant effect upon the interests of the Severn Estuary, however this appears to be based predominantly on air quality modelling and does not extend to other potential consideration such as potential water and land contamination and the impacts of disturbance upon protected bird species.

##### Review of Consent:

The proposed site forms part of an area with extant outline planning permission dating to 1957. This consented area is subject to review under regulation 50 of the Conservation (Natural Habitats) Regulation 1994, currently being undertaken by South Gloucestershire. A jointly funded study is currently

underway to identify areas of new wetland habitat to address and balance the development and wildfowl needs of the area. This study will include a review of the 57/58 permission at Severnside, as legally required under reg. 50. It would appear premature for the Council to grant consent for this proposal until the results of the study are available.

Further to the above comments further information was submitted by the applicants, including a cumulative impact assessment. The further information addresses Natural England's concerns and provides clarification on a number of issues.

It is considered that the outstanding concerns regarding impacts on national and international protected sites can be adequately addressed with respect to air emissions, disturbance and contamination and the objection is therefore withdrawn, subject to conditions requiring further detailed schemes in respect of specific issues. In respect of the ongoing review of the consents covering the wider area, it is considered that whilst the use of the site by SPA birds is not significant, co-ordinated off-site mitigation addressing displacement issues associated with the implementation of development in the wider consented area should be reviewed.

#### 4.7 Environment Agency Waste Regulation

The Environment Agency supports the National Waste Strategy for England 2007, which recognises the need for Energy from Waste as part of an integrated solution to reducing waste sent to landfill. However the facility should try to recycle as much material as possible and try to only burn residual waste. The application suggests that the facility will accept sorted waste. There is no indication of any sorting taking place on site. If the applicants are using off site services to remove recyclable material from the waste, then this should be through another facility such as a material recycling facility or through another recognised process. Whilst this may be addressed at the permitting stage it would have been good to see an indication of how the facility would ensure that the waste arriving had either been pre-sorted or would be sorted before treatment. If an off site facility is proposed an indication of how the system would work, how the waste would be transported, storage capacities' etc. would have been beneficial.

- 4.8 The proposed facility would require an Environmental Permit from the Environment Agency. We would expect the applicant to recover as far as practicable heat generated through the combustion process. This would ideally be through a combined heat and power (CHP) process as suggested in the planning documents. The applicant should investigate and pursue potential local markets and users for excess heat within the local area. For example, this could be through local heat distribution networks.

The proposed facility has the capacity to potentially treat municipal, commercial and industrial waste from the local area, sub-region and region. Potentially waste may be imported from outside of the region. This facility therefore needs to be considered in the wider planning context, in particular taking into consideration other waste facilities proposed in the Avonmouth and surrounding

areas. This application needs to be considered as part of a developing network of waste disposal and treatment facilities that will allow waste to be treated or disposed of near to where it is produced. This could be as part of the Sub-Regional Plan with the West of England Partnership, or other Local Authorities under the Regional Waste Strategy 2004-2020.

The potential of this facility to provide treatment and disposal capacity for commercial and industrial waste in the local area also needs to be considered. However any development should not impact on or reduce the amount of waste that is reduced, re-used or recycled. This is only part of the waste solution and must be considered in the waste hierarchy.

It is encouraging to see the potential use of the rail system to transport waste material to the proposed facility. This would reduce the amount of road traffic and potentially reduce the carbon emissions associated with waste transport.

As well as planning permission, the operator must get an environmental permit from us before they can run energy from waste plant. We use permits issued under the Environmental Permitting Regulations 2007 to regulate many types of waste management facilities, including energy from waste plants. These permits have strict conditions to make sure the facilities will not cause significant pollution to the environment or harm people's health.

#### Groundwater Protection

The Agency is disappointed that the intrusive ground investigation recommended by the Hydrock report, and promised within the Scoping document (section 18.2 & 18.3) has not been carried out.

We also advise that the underlying geology is now classified as a secondary aquifer and not a non aquifer as stated within the Hydrock report.

Given the former usage, land contamination issues at this site could be significant and onerous. Following the failure of the Environment Statement to fully address land contamination issues, the Agency consider that planning permission should only be granted to the proposed development as submitted subject to a recommended detailed planning condition seeking preliminary risk assessment, site investigation, remediation strategy and verification plan. Without this condition, the proposed development on this site poses an unacceptable risk to the environment and we would wish to object to the application.

#### Conservation

Although the relevant ecological issues have been addressed in the ecology section of the Environment Statement, with an appropriate mitigation strategy, there appears to be no actual biodiversity management plan, which sets out long term management objectives for the site. Therefore the proposed development will only be acceptable if a planning condition is imposed requiring a scheme to be agreed to ensure that the landscape within the site is managed in such a way as to protect the ecological value of the site including the Red Rhine.

## Flood Risk

The Environment Agency currently objects to this application in its current form until acceptable clarification is given relating to the Flood Model and Flood Risk Assessment (FRA). There remain flood risk concerns which need addressing through provision of further modelling information and hydrology updates. Subsequent further flood risk modelling information has been submitted and is currently being considered by the Environment Agency.

### 4.9 Avon Wildlife Trust

The Trust at this stage objects to the application on the grounds that bird surveys are incomplete and recommends that no decision is made until such time as the bird surveys are complete and have been submitted.

Other concerns that the Trust raises are those of air quality and cumulative impact, particularly taking into account other significant development and proposal in the vicinity. The Trust in these respects is concerned over the nature of the air quality background readings provided and the subsequent estimated air quality levels post development as well as concerns over the lack of cumulative considerations in the equation.

In addition to this it is considered that additional mitigation measures should include management of the Red Rhine, noise mitigation between September and March to minimise potential disturbance to over wintering birds.

### 4.10 Network Rail

There are no objections in principle to the proposal, however consent for re-connection of the railway and any other infrastructure works that may be required to cater for rail freight to the site, would be subject to negotiation and agreement with Network Rail. A list of requirements in order to ensure safe operation of the railway and protection of Network Rail adjoining land for such a proposal is provided.

### 4.11 Other Representations Friends of the Earth

Both the South Gloucestershire and Bristol Branches of Friends of the Earth have objected to the proposals on a number of grounds which are summarised below:

- This application is contrary to the West of England Joint Waste Core Strategy
- The proposed incinerator will result in importation of waste from outside the sub-region
- Adverse climate change impacts
- The proposal will not maximise energy recovery from waste and is unlikely to deliver Combined Heat and Power. The incinerator operation is therefore classified as disposal under the EU Waste Directive
- There is no local market for secondary aggregates from incinerator wastes
- The proposal will create additional hazardous waste from non-hazardous which will require treatment outside the area

- Cumulative impacts of this proposal alongside other similar proposals for the area
- Adverse health impacts
- Increased road transport
- Adverse impacts on protected wildlife species
- Flood risk

#### 4.12 Sustainable Redland

Representation has been received from a group called Sustainable Redland. Their letter objects to the proposals on the basis that the proposals do not form part of West of England Strategy for the next 20 years, waste from outside of the area will be required to ensure maximisation, there is no attempt to extract energy from the incineration, additional hazardous waste from non hazardous waste will be created and the cumulative impact with other proposed incineration schemes would not work towards reducing Bristol's emissions. Building new incinerators provides no incentive to help achieve low energy and less waste.

#### 4.13 SWARD

Representation has been received from a group called Safety in Waste and Rubbish Disposal (SWARD). This is a group based in Gloucestershire whose concerns in respect of the application centre around the disposal of residues resultant from the incineration process. Residues from the process are classified as hazardous waste. These residues will need to be dealt with i.e. disposed of at an appropriately licensed facility. Currently the nearest such appropriate facility is located near Cheltenham. It is therefore anticipated that the hazardous waste generated from this proposal will be disposed of there. SWARD raise concern and objection to this on various grounds, in particular:

- Proximity of the landfill to residential properties and the amount of hazardous material to be disposed there would result in increased exposure to air pollution control (APC) residues with potential health implications
- It is contrary to key planning objectives of PPS10 and the Waste Framework Directive in terms of safe disposal of waste and as a new consent has not yet been issued it is premature to make an assumption that this represents the nearest appropriate installation to enable disposal.
- There is inadequate consideration of residue treatment and disposal in the Environmental Statement.

#### 4.14 Local Residents

5 letters from local residents have been received, including individual representation from Dr Andy Tubb, who is a Senior Lecturer in Waste Management at the University of the West of England objecting to the proposal.

Concerns raised in one of the letters are over the increase in heavy lorries on the A403 and the polluting emissions associated with burning plastic which

should be stringently controlled.

Several grounds of objection relating to both the site itself and the principle of the type of facility have also been raised. These are summarised as follows:

- the process creates toxic emissions and hazardous ash
- material will still need to go to landfill
- the proposals pose significant health risks
- green house gases will be released
- emissions incidents indicate that operators cannot operate within legislative environmental regulations
- incineration depresses recycling and waste resources
- the process relies on exaggerating future quantities of waste instead of strongly increased recycling and composting
  - cumulative pollution impact with other facilities in the Avonmouth area will be increased
- claims of recycling of bottom ash are unfounded
- overprovision of capacity in local area leading to importation
- increases in HGV movements transporting material both to and from the facility
- landscape impacts associated with height of stack required for dispersal of emissions

#### 4.15 Other Responses

Six further letters have been received from individuals objecting to the proposals. One of the letters states its agreement with the objection reasons cited in the Friends of the Earth response as referred to above. The remainder raise objection to the proposal both in principle to the development and on the basis of potential impacts on the following points:

- 4.16
- the method for dealing with commercial waste does not follow the best practice strategy adopted by the West of England Partnership for municipal waste and other processes which would extract further recyclable waste, leaving only stabilised residue going to landfill
  - recycling waste is better than incineration in terms of climate change, incineration producing greenhouse gases and uses fossil-fuel derived waste to do so
  - the health risk associated with the dioxins resultant from the burning of waste and its health implications
  - such burning of materials which could be extracted discourages development of other recycling solutions
  - the size of the facility means waste will be brought to the site from a wider area with associated transportation implications for the environment and the continuous need of the facility through substantial inputs will continue to negate against recycling possibilities
  - the phasing out of residual waste and ensuring that all waste is reusable, recyclable or compostable should be the main goal.
  - co2 production is similar to coal fired power stations, dispelling the 'green electricity' contribution
  - the plant will incinerate waste that could be recycled and there are no detailed plans to recover heat or use the resulting ash

- the proposals will create pollution, contribute to climate change, put back recycling efforts and detract from the goal of renewable energy generation.

## 5. ANALYSIS OF PROPOSAL

### 5.1 Principle of Development

### 5.2 National Guidance

Waste management requirements are addressed by Directives and Strategy on a European and national level. The Waste Framework Directive provides the basis of the principle of the waste hierarchy and requires the hierarchy to apply, as a priority order in waste prevention and management legislation policy. The hierarchy applies as follows:

- Prevention
- Re-use
- Recycling
- Other Recovery e.g. energy recovery
- Disposal

- 5.3 The National Waste Strategy for England (2007) recognises the need for Energy to Waste as part of an integrated solution to reducing waste sent to landfill in accordance with the requirements of the waste hierarchy. This is also evidently an aspiration of the Landfill Directive. Energy policy of the Governments Energy White Paper is derived from EU targets for renewable energy. This in particular looks at reliance on energy supplies and reduction in carbon emissions from energy production recognising the role of renewable electricity and energy from waste in a decentralised energy supply structure.
- 5.4 National planning guidance in respect of waste and energy policy is provided in a number of Planning Policy Statements and takes into account waste strategy and directives. In particular, PPS10 provides key planning objectives to help deliver sustainable development, through driving waste management up the waste hierarchy, addressing waste as a resource, providing a framework to enable communities to take more responsibility for their own waste, and helping to implement the national waste strategy and supporting targets consistent with European legislation and support and complement other guidance and controls. Such targets include addressing the waste hierarchy, and include in particular reduction of waste to landfill, the development of sources of renewable energy as an integral part of a strategy to reduce carbon emissions (Emerging Energy Strategy) and tackling climate change through the location of development (PPS1 Supplement).
- 5.5 PPS 22 (Renewable Energy) sets out the Governments policy for renewable energy. Biomass is defined as a form of renewable energy, this would include waste and residues from industrial and municipal waste streams for the biodegradable fraction only such as, for example, wood waste and food waste. The proposed facility would therefore be considered to in part contribute to these considerations. The principles of PPS 22 are to provide clear support to renewable energy projects to facilitate the national commitments on climate change and renewable energy production. It also recognises that such facilities

- would require transportation of material and that facilities should be located as close as possible to the source of material, it also however recognises that other considerations, such as connection to the grid and the potential to utilise heat can also influence locational considerations.
- 5.6 A further consultation draft of PPS1 supplement (Planning for a Low Carbon Future in a Changing Climate) has also recently been published. This is essentially a review and consolidation of the positions in the current PPS1 supplement (Planning and Climate Change) and PPS2. The principles of this document set out a framework for securing progress against UK targets to cut greenhouse emissions, to use more renewable and low carbon energy and to plan for climate change. The guidance provides a presumption in favour of sustainable energy applications and decentralised energy such as district heating/heat grids. This document is currently at consultation draft stage, so whilst a material consideration, carries limited weight in the decision making process.
- 5.7 Regional and Local Policy  
The draft Regional Waste Strategy (2004) forecasts, predicts and allocates anticipated waste stream capacities for each sub-region in the South West. These figures were subsequently incorporated in Policy W1 of the draft South West Regional Spatial Strategy. However, as a result of a recent ministerial letter, the government are intending to abolish regional spatial strategies and therefore no material weight can be given to the draft RSS. As the waste capacity allocations originate from the Regional Waste Strategy and have been tested and underpinned by the West of England Waste Management Needs Capacity Assessment June 2009, they are still a material consideration for the planning of waste management facilities.
- 5.8 Emerging Documents  
Joint Waste Core Strategy  
The Joint Waste Core Strategy (JWCS) is an emerging document being brought forward by the four unitary authorities. This will set out a broad strategy for waste management in the former West of England sub-region, based upon detailed quantitative information and provide a policy tool for identifying requirements and assessing proposals. The Strategy is currently at the Pre-submission document stage and is not therefore adopted. Whilst it will therefore carry limited weight at this stage, it will provide the waste strategy into the next plan period and does need to be taken into account. The Pre-submission document has been subject to public consultation and is due to be formally submitted for examination in July.
- 5.9 The evidence base for the JWCS builds on the Regional Waste Strategy and includes the West of England Waste Management Capacity Needs Assessment, June 2009. The JWCS thereafter provides the policy framework to deliver the waste management capacity apportioned to the sub region within the draft Regional Waste Strategy. The Strategy forecasts and identifies, in terms of the residual waste stream, for commercial and industrial waste, the need to manage in the region of 800,000 tonnes per year.

- 5.10 The strategy recognises the need for and continues the strategy for waste management of forecast waste arisings into the next plan period. In this respect the need for increased waste reduction, re-use and recycling is evidently recognised, whilst also recognising the need to address the management of residual waste itself in the most appropriate manner in each case. Again, it is clear that the JWCS is not technology specific, recognising that residual waste treatment facilities can incorporate a number of processes. It is for the applicant to determine the nature of the facility and ensure that it meets the relevant criteria. Energy recovery is placed beneath materials recovery in the waste hierarchy, however it is recognised that it has a beneficial role to play and is also recognised in national policy in terms of both sustainable waste management and provision of a decentralised, renewable and/or low carbon energy source. Proposals incorporating combined heat and power (CHP) or electricity generation will help national policy objectives and should be encouraged as such in the JWCS.
- 5.11 In order to be able to distinguish a proposal as energy recovery as opposed to waste disposal, Policy 6 of the JWCS, provides a selection of operational expectations for residual waste treatment facilities. In this respect firstly, facilities would be permitted providing that the value of the material and a market demand is presented, and that secondly the waste to be treated cannot practically and reasonably be re-used, recycled or processed to recover materials and that energy is recovered and a market is presented for that energy. The JWCS defines residual waste as that which remains after recycling and composting has or can reasonably be assumed to have occurred. The material that would be used for this site is stated as being as residual and would be pre-sorted. This would mean any re-use, recycling or recovery value of elements within the waste would have been taken and it would otherwise go to landfill. As stated the JWCS identifies a requirement to manage in the region of 800,000 tonnes of this waste stream per year. The market for the energy is clear from the sites proximity to the national grid connection, the urban areas and through the principle of providing more energy from recovery processes.
- 5.12 A number of options for the strategic provision of facilities that will address the 'recovery' element of the waste management strategy, recovery being the process of extracting a product or value from waste materials including through energy recovery, are being considered and tested through the plan process.
- 5.13 Policy 5 of the JWCS provides a list of specific sites where treatment of residual wastes would be supported, subject to development management policies and where it supports the Spatial Strategy. The site the subject of this proposal is amongst the list of sites identified. An indicative required capacity for 'Zone A' which includes, amongst other areas the Severnside/Avonmouth vicinity, and incorporates areas of South Gloucestershire, Bristol and North Somerset, and is one of 5 identified zones as part of the Spatial Strategy within the JWCS covering the West of England area, is suggested as 390,000 tonnes per year. This is the largest single allocation within all of the zones which combined contribute to make up the identified 800,000 tonnes per year capacity requirement. This figure is commensurate with the capacity of the proposed facility at full production i.e. both process lines in full capacity.

- 5.14 The emerging South Gloucestershire Core Strategy provides policy support on renewable and low carbon energy generation (Policy CS3) as well as looking towards the potential for incorporation of renewable and low carbon district heating networks in certain developments (Policy CS4).
- 5.15 Further to the above strategic provisions and in a local development control context, Policy 29 of the adopted Joint Replacement Structure Plan and Policy 36 of the adopted South Gloucestershire Minerals and Waste Local Plan seek to ensure satisfactory provision of forecast waste arisings through a network of facilities in accordance with the Best Practicable Environment Option in each instance and within the framework of the waste hierarchy. Recovery of value from waste is an element of this hierarchy that prevents material from going to landfill and elevates that waste up the hierarchy above landfill. As stated the Joint Waste Core Strategy, as an emerging document, is addressed in a separate section below, this essentially takes up the principles of national and local guidance for the future plan period.
- 5.16 The principles of diverting waste from landfill are therefore clearly supported through European and National Guidelines and targets and Regional and Local Policy. The principle of the process of waste to energy is evidently a means of managing particular waste stream which cannot be recycled and would otherwise go to landfill, whilst utilising the energy that would be generated from the process to beneficial use and thus helping to protect other natural resources. Whilst the endeavour and continued thrust of the principle of the waste hierarchy should continue to be made towards maximising waste minimisation, recycling and re-use, diversion of waste from landfill is also a driver. This process clearly pushes an existing waste stream up the waste hierarchy, which at the moment would otherwise go to landfill, thus fulfilling the basic requirements and principles of waste strategy and hierarchy.
- 5.17 There are various technologies that can be applied in the treatment of residual waste. Waste strategy and development policy guidance does not prescribe the type of waste facilities to be implemented in addressing this waste but recognises the need for Energy to waste as part of an integrated solution to reducing waste sent to landfill. Each application must therefore be judged on its individual merits.
- 5.18 The relevant waste policies seeking to implement waste strategy do seek however to further scrutinise the sustainable credentials and merits of such waste proposals in order to ensure the facilities do meet certain environmental criteria. This is essentially summed up in Policy 41 (Energy from Waste) of the South Gloucestershire Minerals and Waste Local Plan, which in particular, in reference to this form of technology as a means of waste management within the hierarchy, seeks to ensure such facilities are located appropriately within existing employment sites whilst being close to the source of waste and/or the market for the recovered energy, maximum use is made of non-road transportation potential, the potential for energy recovery is maximised and that the site would not have an unacceptable impact upon the environment or the amenity of the locality. These criteria are discussed in the sections below which look at the sustainability issues associated with the type of technology and its

location efficiency:

5.19 Location of Facility

The site itself is located within the Severnside employment area as covered in the historic ICI consents and identified in Policy 2 of the South Gloucestershire Local Plan for employment and industrial activity. This policy identifies the sites economic potential and major strategic location and seeks to ensure a comprehensive, integrated and sustainable form of development within the area for a broad range of uses, whilst recognising the need to balance this with the coastal zones ecological and landscape requirements, flood risk, and other needs and uses that may be required, such as transportation infrastructure. Essentially the site is covered by policy which establishes the site as an employment/industrial location. The site is also described as brown field site, on the basis of, in part at least having been previously been utilised for storage tanks, although this appears to relate only to part of the site, aerial photographs also indicate ad-hoc storage over other areas of the site in the past. The context for suitability of the site is considered to be adequately demonstrated, in principle, taking into account policy designation and previous usage, within the context of Policy 2 of the SGLP and Policy 41 of the SGMWLP, however as a waste use differing to those permitted under the historic consents, requires a separate full permission.

5.20 Proximity to Source and Market

There is a recognised need to plan for the minimisation of transport of waste, particularly by road. This is highlighted in the National Waste Strategy and PPS10. In this respect the principle that is put forward in PPS10 is to provide a framework in which communities take more responsibility for their own waste and enable sufficient and timely provision of waste management facilities to meet the need of their communities.

5.21 The application site is on the South Gloucestershire/Bristol administrative boundary and close to built up/urban areas, considered to be the key sources of waste. As a result the potential market for power generated by the proposal is also near. At this stage feasibility of National grid connection has been undertaken and an application is being prepared. The nearest appropriate connection is located along Severn Road. The application is founded upon the excess of commercial and industrial waste arising within the former County of Avon area it is therefore anticipated that waste is most likely to come from the immediate surrounding areas.

5.22 The application states that the proposed facility would accept sorted, residual commercial and industrial waste arising within the former County of Avon geographical area, not specifically South Gloucestershire. Transportation costs and market forces are also likely to dictate how far waste is liable to travel viably and economically. In addition to this the site is a merchant commercial venture, and does not, as submitted, form part of a municipal waste contract or strategy. Notwithstanding this the sources of waste exists in proximity to the facility, as does the market for energy generated.

5.23 It should be noted that the site is located adjacent to an existing railhead. It is stated as the applicant's intent to utilise this railhead for transportation of waste

to the facility when it becomes economically viable to do so. In essence this means when haulage costs are such that the implementation of the use of the rail facility becomes an economically viable alternative. What the site provides is the opportunity to achieve this on an existing rail network. Whilst it would be hard to insist upon its use from the offset, as amongst other things it is dependent upon the waste being able to be loaded from another rail facility at source and is also dependent upon Railtrack approval, readiness to as great a degree as possible for future anticipated use of the rail network could be put in place, and any work done to this end is more likely to ensure its future use. Again the availability of facilities, contractual arrangements and market forces would have a role in determining this, however the large urban markets of South Gloucestershire and Bristol would remain strategically and economically placed for usage of the facility, providing the best and most likely sources of waste. Loading facilities at the other end of the line would also be a necessity and therefore a potential restrictive factor outside the applicants control. In the meantime assessment has been made upon the use of the site, at full capacity, utilising waste sourced by road, on a worst case scenario basis. The transport assessment of the impact upon the local road network from the proposals is made on this basis and discussed in more detail in the relevant section below.

- 5.24 As stated the facility would also reduce the need for landfill and in this context the fact that waste currently travels outside of the strategic area to be discarded at landfill should also be noted. The proposed facility therefore is considered to contribute to the achievement of the aims of pushing the waste up the hierarchy, but also essentially provides the opportunity to deal with that waste within the strategic area whilst also providing energy capability to that area. In terms of energy capability it is however recommended that a requirement for an approved and completed connection to the grid is demonstrated prior to the commissioning of the plant, thus confirming the sites capabilities and contribution as an energy from waste plant. The facility would in this respect be considered to accord with Policy 41 of the South Gloucestershire Minerals and Waste Local Plan.
- 5.25 Need for Facility, Availability of Waste and Future Recycling  
The application states that the facility would accept presorted, residual waste. At present, forecast capacity requirements for this stream of waste that requires management within the former Avon area is around 800,000 tonnes per year. SITA themselves currently deal with 113,000 cubic metres of residual waste from the former Avon area, this figure amounts to 28% of the full potential capacity of the site or 57% of the capacity of one process line. This material currently travels significant distances outside of this area for disposal at landfill. This amount of material could be retained within the strategic area and provide a resource for energy generation.
- 5.26 Waste coming from SITA customers will be pre-sorted in order that recyclables are separated from the process. It will continue to be both a strategic policy aim, a corporate responsibility and in many cases a wider commercial benefit to ensure that waste is managed as high up the waste hierarchy as possible. A facility in the Avonmouth area has been consented and incorporates scope to

- accept unsegregated waste as it incorporates a materials recovery facility (MRF) and also has gasification technology. SITA own the capacity to the site and where waste is unsegregated would send it to this facility for further sorting, thereafter leaving the Severnside EfW site to accept only pre-sorted waste. This would appear to indicate that the use and existence of an incineration scheme does not preclude other facilities and technologies from developing or indeed further recycling, but moreover form part of a wider infrastructure of facilities necessary to deal with waste arisings as they exist and are forecast. A condition could also be applied with a requirement for the facility to accept only pre-sorted, residual waste.
- 5.27 As stated, it will remain preferable both in terms of sustainability and cost efficiency for users of the facility to continue to pre-sort and recycle. This also does not preclude the possibility that national policy and guidelines will continue to be informed by further advice and directives in respect of appropriate waste management technology and any changes or restrictions reflected in policy. It is for the applicants consideration and indeed investment risk that sufficient waste will remain available in this stream over a sufficient period. The two line processing design of the facility at 200,000 tonnes capacity for each line, does provide flexibility within the proposals to operate on the basis of one line only.
- 5.28 Based against current waste arisings figures as well as waste forecasts it is considered that there is a sufficient residual waste stream within the strategic area to maintain the facilities effective operation that currently needs to be dealt with and that would otherwise go to landfill.
- 5.29 Sustainability:
- 5.30 Nature of Facility  
Broad objectives of the National Waste Strategy, PPS10 and local policy seek to identify and provide the opportunities for addressing waste within the context of the waste hierarchy. Energy from waste is recognised within this context as a means of achieving this objective through diversion from landfill. Technologies that may be utilised for this aim are not specified in detail through legislation. Policy 41 of the SGMWLP requires that in energy from waste schemes the potential for energy recovery is maximised and that the site would not have an unacceptable impact upon the environment or the amenity of the locality. The Council's Sustainability Officer has advised upon the efficiency and emissions aspects of the proposal.
- 5.31 The proposal would incorporate a moving grate incinerator including two independent process lines with a capacity of 200,000 tonnes each per year, giving the facility an annual capacity of fuel input (waste) of 400,000 tonnes per year. The purpose of the site is as an energy from waste (EfW) plant to recover energy from waste. Waste that is delivered to the site is burned to heat water into steam. The steam will be used to drive a turbine, which generates electricity for export to the national grid. The development proposals include the incorporation of an off-take valve to allow for heat to be taken from the process and utilised by local end users. The details of such connection and end use are however to be determined. The combustion of waste generates some residue

in the form of incinerator bottom ash and fly ash, which will need to be recycled or disposed of at appropriate facilities. Whilst it is considered by the applicants that restrictions on the site itself prevent physical recycling of bottom ash, there have been approaches to utilise this by-product as a resource elsewhere. To this end a scheme could be required demonstrating that opportunities for such recycling will be investigated and implemented where feasible to ensure such recycling will occur. Fly ash residues will need to be disposed of at an appropriately licensed facility.

5.32 Concerns over the nature and type of facility and the technology used both upon the environment and as a potential inhibitor upon recycling have been raised. There are other technologies of residual waste management that also provide useable electricity and heat generation which may provide greater electrical generation thus reducing the quantity of waste heat. It is however for the developer to determine the nature of the facility and technology proposed, and the LPA to assess it on its merits. Modern incineration i.e. energy from waste, is an established and recognised form of waste management to address the existing issue of residual waste. In this instance the maximum potential of the sites generating capacity will be utilised through the production of electricity to the national grid. Further potential could be realised through the further utilisation of heat generated where opportunities for heat transfer arise. In this respect the waste also remains further up the waste hierarchy through its diversion from landfill, a key strategic waste objective that is therefore complied with. The proposed plant EU Waste Incineration Directive compliant. The applicants consider that at present other technologies provide in the main only an interim treatment of waste which would require further management or treatment for any beneficial use. They do however operate a number of technologies throughout the country and consider in this instance and that a significantly sized EfW facility is required, as part of a wider strategy, to address the evident waste stream and this is the most effective and proven method of treating the waste and recovering value in the form of heat and electricity in a large scale manner. It does not necessarily preclude the development or co-working with other facilities or technologies (such as gasification/pyrolysis) as there is significant waste arisings identified to sustain other sites. As a facility dealing with commercial and industrial waste (as opposed to municipal waste) it will be their considerable investment risk, based upon much analysis of the current and forecast waste situation that this remains the case.

5.33 Energy Efficiency and Emissions

Initial assessments on CO<sub>2</sub> savings in terms of electricity generation from the facility indicate that the incinerator would save in the region of 127,000 tonnes per year of CO<sub>2</sub> being emitted into the atmosphere, in terms of its electricity generation as it would supplement and reduce reliance upon existing fossil fuel electricity generation from the grid. Further to this, and again with links to the waste hierarchy principle, and as stated by the Environment Agency, energy from waste plants do not contribute more to global warming than landfill sites. Whilst energy from waste plants do produce carbon dioxide gas as a result of burning waste, the energy they produce replaces that which would be generated by other fuels such as coal, oil and natural gas that would otherwise be burnt at power stations to generate electricity. Methane has a global

warming potential of more than twenty times that of carbon dioxide. Energy recovery from landfill is also relatively poor, although obviously better than doing nothing when waste has reached that bottom level of the hierarchy. Similarly for comparative purposes the Agency state that in comparison with the coal fired power stations, incinerators generating electricity only, produce far less carbon dioxide emissions, as although coal fired power stations will generate electricity more efficiently than an incinerator the stations are much larger and use carbon rich non renewable fuels, as opposed to residual waste which instead of going to landfill is used as a resource. It is also suggested that further reducing the reliance on landfill that this would also reduce the transportation impacts associated with disposing of residual waste outside of the sub-region or the south west region as a whole. Future rail importation would further contribute to these goals.

5.34 Combined Heat and Power Capability

The application has focussed on its energy from waste merits not on the basis of CHP (combined heat and power) plant capability. Notwithstanding this there is provision within the design of the facility for heat recovery through an off-take valve, making the facility CHP enabled. There are however no specific details or identified sources or strategy for waste heat recovery.

5.35 Policy 41 of the South Gloucestershire Minerals and Waste Local Plan requires that the opportunity to secure energy recovery and its productive use has been maximised in the proposal. Relevant energy policies of the draft Core Strategy are considered to be policies CS3 and CS4. CS3 provides support to renewable generation sources with weight attached to those that provide heat or electricity to the National Grid. It should be noted that as an emerging document this will carry limited weight however remains a material consideration. In particular however policy CS4 in reference to applications to develop thermal generating stations with a potential to generate significant waste heat should either either a) include heat recovery and re-use technology and b) heat distribution infrastructure, or c) provide evidence that heat distribution has been explored and is unfeasible. The facility however falls outside of the thresholds of the Draft National Policy Statement on renewable energy (EN 3), which covers schemes of 50MW or more which would otherwise require developers to explore opportunities for incorporating CHP to a greater extent.

5.36 At present the combined heat and power potential of the facility is restricted by acknowledged lack of infrastructure. Whilst in context of the policies referred to above the capability or potential for utilisation of heat generated from a process is a consideration in the location of an energy facility, and notwithstanding the fact that these are addressed below, there are other considerations such as proximity to the source of waste, localised electricity output/connection to the grid, alternative modes of transport and overall suitability of a site which contribute strongly to suitable locations.

5.37 The main developed site in the immediate vicinity is the Seabank Power Station immediately to the south. This site whilst in close proximity is not suitable for heat transfer due to its specific requirements. In other directions surrounding the site the land is awaiting redevelopment as part of an ongoing program

under the historic consents. Re-development on surrounding areas is anticipated, and the land forms part of the former ICI historic permissions covered by Policy E2 of the South Gloucestershire Local Plan. It is considered that this may provide opportunity within the immediate locality for effective use of heat that will arise as a result of the incineration process and which will otherwise be lost. The facility therefore provides limited scope for heat use potential at this stage, as evidently the location at present and lack of existing development infrastructure provides difficulties in this respect. However the facility will provide heat use technology and infrastructure at the site in anticipation of re use opportunities. The applicants have also been actively involved in discussions and local forums with regards to the future potential for the development of a localised heat grid. The nature of the sites location will provide future opportunities to further explore heat use feasibility. This would of course be a further benefit to the company as a further marketable by-product of the process.

5.38 To this end and to ensure that the use of generated heat from the process will be addressed when the opportunity arises, the applicants agree to a recommended conditional requirement that requires the applicants to undertake firstly the infrastructure referred to off-take the heat to enable CHP, and thereafter, on an ongoing review basis, to assess and fully explore potential opportunities and thereafter secure implementation when identified as viable. It is considered that this demonstrates satisfactory consideration of the issues involved for the purposes of planning consideration at this location and therefore compliance with the Policy 41 of the South Gloucestershire Minerals and Waste Local Plan, the principles of PPS10, as well as the emerging development plans referenced.

5.39 As stated it is for the operator to determine the nature of the facility proposed and for the LPA to determine it on its merits. Legislation will further restrict the use of incineration should it be deemed necessary to do so. Whilst at this stage need and residual, non recyclable, waste stream is adequately demonstrated, it is the applicants risk, as a commercial venture, that this will remain the case and that sufficient waste stream requiring such management will remain. In the meantime it is necessary to judge such proposals against any relevant development management criteria in terms of its potential impact. These individual issues are assessed in more detail in the relevant detailed development control sections below.

5.40 Cumulative Impact of Waste Facilities

An independent assessment of the combination of facilities either approved or applied for within the Avonmouth/Sevenside in the context of compatibility and compliance with the wider strategies and aims of the JWCS has been undertaken by the consultants with whom the strategy was drafted in co-operation with. This essentially provided an interpretation of both the current proposals as well as existing facilities in the area in the context of the JWCS, and in particular the allocation of waste capacities in different areas of the West of England. It does not present any immediate strategic objection to the consideration of all the proposals, indicating that they should be determined on their own individual merits, with strategic policy providing only a waste apportionment geographical spread and no spurious precision or rigid cap over

permitted capacity or a need for each facility to demonstrate fuel (waste) sourcing, which would be a commercial matter for the applicant. Further to this the granting of a planning consent does not represent delivered capacity and does not mean it will be implemented, particularly if market forces or competition from other facilities indicate the investment risk and available waste stream would be prejudiced. The headline target associated with the recovery infrastructure sought in the JWCS is in fact to provide sufficient residual waste capacity, and to ensure efficient recovery of resources.

- 5.41 PPS10 states that when proposals are consistent with an up-to-date development plan, waste planning authorities should not require applicants for new waste management facilities to demonstrate a quantitative or market need for the proposal. In the interim period before the development plan is updated to reflect the policies in PPS10, planning authorities should ensure proposals are consistent with the policies in the PPS and avoid placing requirements on applicants that are inconsistent. Further to this recent case law also provides indication on the current position on need demonstration, whereby it was considered that the granting of consent can be no guarantee of construction or provision of capacity. Furthermore it was stated that neither waste nor energy policy places a rigid cap on the development of waste management capacity.
- 5.42 Positive determination of more than one proposal would not affect the soundness of the principles of the JWCS although the cumulative impact in each instance should be assessed to ensure acceptability of individual proposals.
- 5.43 Notwithstanding the above interpretation, the recent refusal of the simultaneous application for an energy from waste plant proposal in the Bristol City Council administrative area further emphasises the potential non delivered capacity status of proposals at preliminary stages.
- 5.44 The cumulative impact assessment that looks at the combined impacts of the site in the context of other development in the area has however taken them into account as part of its considerations and forms part of the assessment within the context of the relevant individual sections below. However in principle, and in light of the considerations above it is considered that the proposal can be considered consistent to the aims of the Joint Waste Core Strategy, subject to positive consideration of any associated or perceived cumulative impacts based on the sites interaction and relationship with developments in the surrounding area.
- 5.45 Other Legislative Considerations  
It should be noted that this report addresses considerations that it is considered pertinent to the land use implications associated with the proposals based upon development control policy. The sites processes would also be subject to the Environment Agency permitting requirements which would seek to control pollution and maintain emissions to within the lowest practicable levels. These processes are independent, and Government Guidance (PPS10) states that they should compliment each other without duplication. The process of applying for a permit has commenced alongside the planning application process, the facility would then need to meet the strict operational and environmental

controls that would allow a permit to be granted. The Agency may however object to a planning application if they consider that in principle key environmental criteria cannot be met at a particular location for a particular development, or if there are other fundamental issues. The Agency may refuse to issue a permit regardless of whether planning permission has been granted, should it consider that it has not been satisfactorily demonstrated through the permit application and working plan that required environmental standards will be met through the proposed detailed management and operation of the site. Specifically applicable to this form of technology is the Waste Incineration Directive, which strictly limits emissions that should prevent unacceptable impact. The Environment Agency's position on energy from waste is that it is acknowledged that there is a need to create less waste and recycle more but also to maximise the use of residual waste remaining in a safe, environmentally friendly way and that recovering energy from waste can contribute to a balanced energy policy. Should a permit be issued for a site its performance will thereafter be regulated and monitored through the requirement of continuous emissions monitors and continued assessment of plant operations. Ultimately they will not issue an environmental permit for any industrial site, including energy from waste plants, if they consider that they will cause significant pollution to the environment or harm human health. PPS 10 states that Waste Planning Authorities should work on the assumption that the relevant pollution control regime will be properly applied and enforced. The Environment Agency have issued a positive draft decision and Permit document.

#### 5.46 Section Summary

It is considered that the relevant, broad locational principles of the relevant provisions and policy criteria for the site are met. In addition to this the type of facility proposed, taking into account the requirements of the waste hierarchy, diversion from landfill, the generation of energy and the existence of further legislation to control emissions is considered acceptable in principle within the context of existing policy, in planning terms. Technology applied is not dictated by guidance or policy and is therefore a consideration for each application on its merits. Further to this however there also a number detailed development control issues which are key in the consideration of such a proposal against which the application would need to demonstrate acceptability at this location, these are addressed in the relevant sections below.

#### 5.47 Environmental Protection Issues

Policies EP1 and EP2 of the South Gloucestershire Local Plan and Policies 20, 21 and 22 of the South Gloucestershire Minerals and Waste Local Plan seek to prevent environmental pollution, protect unacceptable harm to the health, safety and amenity of users of surrounding land through water air, or soil, protect the local water environment, prevent flooding and ensure satisfactory drainage. The issues for consideration are the potential and likelihood of impacts upon the surrounding area in these respects and whether mitigation measures proposed would satisfactorily address any concerns.

#### 5.48 Air Quality/Pollution Control

Concerns over air quality have been raised on a number of counts by a number of bodies and organisations as highlighted in the consultation section above,

this issue is also discussed in the context of the Ecological considerations for the site below specifically in context of the sites proximity to the Severn Estuary.

- 5.49 It should firstly be noted that, as stated above, the site would need to be operated in compliance with details of an environmental permit from the Environment Agency. Such a permit would be subject to detailed application by the operators for assessment by the Environment Agency. If upon assessment and satisfaction it is demonstrated that the site and processes in question can be operated and undertaken within the stringent guidelines and a permit is issued, the permit would impose strict conditions under which the plant should continue to operate to make sure the facilities in question will not cause significant pollution to the environment or harm peoples health. Such a permit has been applied for and a draft permit issued. This legislation is designed to run alongside land use planning legislation, the goal being that they compliment each other without duplicating.
- 5.50 Notwithstanding these observations and reference to the EA permit requirements, the Council's Scientific Officer has also assessed the proposals. In general, the Air Quality Assessment is considered to have covered the main impacts on air quality arising from this development. There are some shortcomings in the assessment in that more local and up to date data could have been used. Also the potential impact on air quality from increased rail movements with the proposed use of the existing railhead on the site, have not been considered as part of the assessment. However, these shortcomings are not sufficient to vary the report conclusions. It is indicated that potential emissions arising from the development will contribute to air pollutant concentrations, however, the contributions are considered insignificant and overall, the assessment concludes that no air quality objective will be exceeded as a result of the development. A cumulative impact assessment has also been provided for assessment in context with the sites surroundings in terms of other uses in the area both proposed and existing.
- 5.51 The information submitted adequately demonstrates that the impact on nearby receptors has therefore been considered and the inclusion of a Human Health risk Assessment is welcomed. Emissions from the development would contribute a relatively small amount to the combined impact of all the considered developments and the cumulative impact assessment is considered to be acceptable. The details submitted conclude that the impacts on health are insignificant in respect of dioxins and heavy metals. It should again be noted that the plant will be regulated by the Environment Agency under strict operating criteria prescribed by the Waste Incineration Directive. To summarise, there is no basis to object to this proposed development on air quality grounds. The impact of air quality upon the Severn Estuary habitat area is discussed in more detail in the ecological section of this report.
- 5.52 Flood Risk  
The Environment Agency have objected to the application in its current form until acceptable clarification is given relating to the Flood Model and Flood Risk Assessment. Further information with regards to flood risk modelling and risk assessment has subsequently been provided. Further comments are

anticipated from the Environment Agency and will be provided in an update report.

5.53 Ecology

Policies L3, L6, L7, L8 and L9 of the South Gloucestershire Local Plan and Policies 10, 12, 13, 14 and 15 of the South Gloucestershire Minerals and Waste Local Plan seek to protect coastal zones, international national and regional sites of nature conservation interest and ensure species protection including areas that may impact upon the integrity of such designations directly or indirectly. The issue for consideration here is whether the proposals adequately assess and take into account any ecological issues associated with the sites location and whether it provides for adequate mitigation and bio-diversity with particular reference to the sites proximity to, and location within the coastal zone of the Severn Estuary (SPA, SAC, RAMSAR).

5.54 The Councils Ecological Officer has assessed the original proposals and subsequent information, including cumulative impact assessment (CIA), over wintering bird survey and Great Crested Newt survey, in detail.

5.55 The application site itself is not covered by any statutory or non-statutory nature conservation designations. However, it lies opposite the foreshore of the Severn Estuary which is notified as a Site of Special Scientific Interest (SSSI) and protected under the Wildlife & Countryside Act 1981 (as amended) and designated as a Special Protection Area (SPA) under EC Directive 79/409 on the Conservation of Wild Birds ('the Birds Directive') and Ramsar site under the Ramsar Convention on the Conservation of Wetlands of Importance.

5.56 The Estuary is also a candidate Special Area of Conservation (cSAC) under European Directive 92/43/EEC on the Conservation of Natural Habitats and Wild Fauna and Flora ('the Habitats Directive 1992'), implemented in Britain by the Conservation (Natural Habitats & c) Regulations 1994 ('the Habitat Regulations').

5.57 The CIA lists the developments to be included within the assessment of cumulative impacts, namely:- Seabank Power Station; Churngold, Castle Cement, Avonmouth Resources Recovery Park, Severn Resources Recovery Park, Eon Biomass, Royal Portbury and Helius Biomass Plant. The Council is satisfied that this includes all relevant plans and projects for the purposes of the assessment.

5.58 Noise:

This section indicates that there will be little increase in the cumulative background noise levels of the CIA sites during the operational phase. However, whilst this includes the predicted construction-phase noise levels arising from the other CIA sites, it does not appear to address the (albeit temporary) cumulative increase in noise levels during the construction phase of the SERC; and particularly the impact of construction of the new junction/roundabout on the A403 adjacent to the Severn Estuary foreshore at Chittingen Warth (SPA). Given its proximity to the European Site, work to construct the junction will need to be time-constrained (May to September

inclusively) through planning Conditions to avoid disturbing the waterfowl on the adjacent saltmarsh/mudflats.

5.59 Air Quality:

The CIA calculates that the aerial discharge from the SERC will result in an increase in nitrogen oxide (NO) levels by 0.05µg/m or 0.2% of the air quality objective of 30µg/m. The highest incremental increase is calculated as 0.32µg/m or 1.07% of air quality objective, with this being reduced to 0.287µg/m or <1% by the constraint of limiting operating hours to a maximum of 8000/annum. Assessed cumulatively, the increase in NO levels arising during the operational phase of the SERC is not likely to give rise to significant effects on the Severn Estuary European Site. Such Air quality issues will however also need to be assessed through the EA permitting regime.

5.60 Lighting:

The maximum light spillage reaching the Severn Estuary is calculated to be 0.01 lux. The assessment concludes that the other sites included within the CIA are located at such a distance from the SSSI or European Site as to have no effect cumulatively in regard to lighting. However, it is uncertain why the CIA did not include an assessment of the estimated light spillage from the SERC taken cumulatively with the AZ/Enron works and neighbouring Seabank Power Station. This would have given a more accurate reflection of the likely increase in light spillage from the development as a percentage of the background baseline lux figure.

5.62 SPA/Ramsar:

The transport and highways assessment calculates that the increase in vehicular traffic will not be sufficient to have any significant affect on the European Site. Notwithstanding this, however, the assessment appears to only address operational traffic and not the (temporary) increase in traffic associated with the construction phase. Further to this, the CIA identifies that the most likely adverse impact arising through human activity is in relation to the roundabout construction close to the SPA. Mitigation for this is addressed within the general assessment of the issue of noise and the requiring this work to be carried out during the waterfowls' seasonal absence.

5.63 Over-wintering Birds:

The CIA included the results of a survey for wintering waders/wildfowl between October 2009 and March 2010. Surveys took place at different stages of the tidal range. The survey found no use of the application site by SPA/Ramsar waders or wildfowl. Conversely, its findings supported previous surveys in identifying that the Chittening Warth was significant and important for a range of European species, with birds roosting in two principle locations – New Pill Gout, immediately opposite the application site; and a high tide roost on the foreshore 0.4km to the south-west, with birds moving out onto the mudflats as the tide retreated.

5.64 The CIA concluded that the area opposite the application site (New Pill Gout) was not important for wintering wildfowl, whereas the high-tide roost farther down Chittening Warth undoubtedly was. On this basis, and the absence of birds from the application site itself, the CIA concludes that the application is

- not likely to have a significant effect on the European Site, either in isolation or cumulatively. However, any assessment of the effects of development on the European Site needs to be across the foreshore as a whole, not by sub-dividing the coastal strip into small, disparate areas and assessing the likely impacts on these individually. The wildfowl using these saltmarsh/mudflats form part of an overall assemblage of birds between Severn Beach and the Avonmouth Docks.
- 5.65 **Habitats Regulations and Review of Consent:**  
Under Regulation 48 of the 1994 Habitats Regulations an appropriate assessment has, in law, to be carried out where a planning application ('plan or project') is likely to have a significant effect on the features of interest of a European Site before planning permission is granted. These impacts could be alone or in combination; direct or indirect; negative or beneficial; long-term or temporary. As the wintering waterfowl survey is a critical part of the HRA of the ERC application, planning permission cannot be granted until such a time as the results of the survey have been received and the HRA carried out.
- 5.66 The application site forms part of an area of land already subject to an extant outline planning permission granted in 1957/58 (known as the '57/58 Consent or 'ICI Land'). As a partially implemented permission, the Council is legally required to review the 57/57 Consent under Regulation 50 of the Conservation (Natural Habitats & c) Regulation 1994. This review is nearing completion as part of a project commissioned jointly by Bristol City Council, Natural England and South Gloucestershire Council to investigate the likely impact of developing Avonmouth and Severnside (the 57/58 permission) on the Estuary's populations of internationally important and protected waterfowl. If likely to be significant, the project/review will explore a series of options to address those impacts.
- 5.67 Given the above, it is considered that the complete absence of European wildfowl/waders from the SERC, as recorded in the winter bird survey forming part of the CIA, indicates that it is unlikely that development will adversely affect the conservation objectives of the Severn Estuary SPA/Ramsar or SSSI through a direct loss of habitat.
- 5.68 It is also considered - based on the analysis of potential cumulative issues included within the CIA - that light spillage from the putative development and aerial discharges (specifically, nitrogen oxide) arising as a result of the SERC scheme are also unlikely to adversely affect the conservation objectives of the Severn Estuary SPA/Ramsar or SSSI, either on their own or cumulatively with the development/schemes identified within the CIA.
- 5.69 **Remaining Likely or Potential Impacts:**  
Given the considerations above the most likely remaining adverse impacts on the Severn Estuary European Site is likely to be through noise and disturbance – either through human or vehicular activity; or during the construction or operational phases of the development.
- 5.70 Whereas the application details indicates only a moderate increase in vehicular traffic during the operational phase of development, it does not assess the (temporary but potentially significant impacts of noise arising from the

- construction of the energy recovery centre and infrastructure, including introducing works' (vehicular) traffic; and, particularly, the roundabout/junction on the A403 opposite the Severn Estuary SPA/Ramsar foreshore.
- 5.71 A second, potentially adverse effect is considered to be presented through site run-off or spillages (pollutants) accidentally affecting the water quality of the Red Rhine during the SERC's operational phase. The ditch runs under the A403 and discharges directly into the Severn Estuary and there is the potential to impact on the integrity of the European Site by transferring pollutants from the application site into the mudflats/saltmarsh during both the construction or operational phases of the development.
- 5.72 It is considered that these remaining issues can be addressed through suitable conditions, should permission be granted, however the Council, in conjunction with Natural England will need to produce a Habitats Regulations Assessment pro-forma prior to the application being determined to satisfy the appropriate assessment requirements. It should also be noted that those operations forming part of the application/development and which require permission under Section 28 of the Wildlife & Countryside Act 1981 (as amended) with regard to the Severn Estuary Site of Special Scientific Interest (SSSI) should receive Consent from Natural England.
- 5.73 Other Ecological Issues  
Great Crested Newt:  
The additional information includes an (interim draft) survey of the application site for great crested newts dated May 2010.. Whilst the report indicates that a further survey will be completed, the indications are that great crested newts will not be an ecological issue.
- 5.75 Visual Amenity  
Policy L1 of the South Gloucestershire Local Plan and Policy 6 of the South Gloucestershire Minerals and Waste Local Plan seek to conserve and where possible enhance the character, quality and amenity of the landscape. The issue for consideration in this respect is therefore what impact the proposal would have upon the visual amenity of the area and whether any mitigating measures may be used to reasonably address any concerns.
- 5.76 The Landscape Character Assessment describes the distinctive landscape of the Pilning Levels as 'Largely flat, semi-enclosed to open agricultural landscape, divided by rhines, linear transport routes and punctuated by large scale industry'. It also goes on to recognise that:- 'Future development in this area will result in a further significant change in character, with an inevitable increased prominence of built features spread over an extensive area. This has the potential to affect the rural character of the adjacent Severn Ridge character area and setting of the second Severn crossing, as well as the local area'. The Council's Landscape Officer has assessed the proposals in context of the relevant policy provisions.
- 5.77 The site comprises in part, previously developed land, as the site was used as tank/fuel storage, forming part of the Severnside Chemical works. The remnants of these storage units, together with redundant piping and outfalls are

visible on site. The remainder of the site is open ground, colonised by scrub and small areas of woodland. The significant Red Rhine flows in a northwesterly direction through the site, discharging into the River Severn via a sluice gate structure adjacent to the northwest site boundary.

- 5.78 The site lies within the belt of low lying land between the Severn Estuary to the west and Severn Ridges to the east. The land forms a green link between the agricultural fields to the east, rising beyond to Spanorium Hill and the estuary to the west. There are extensive views from Spanorium Hill across the levels and the estuary to Wales and forms a backdrop to the Avonmouth area when viewed from the west and Severn bridges.
- 5.79 The estuary is an area of international importance, being a RAMSAR, SPA and SSSI site. The proposals include the retention and enhancement of the Red Rhine, with native planting and attenuation ponds to encourage wildlife and improve the ecological biodiversity of the site, linking to the surrounding rhines and levels.
- 5.80 The Landscape and Visual Impact Assessment within the Environmental Statement provides a comprehensive evaluation of the existing landscape and features present and the potential visual impact of the proposed development. The assessment has been carried out in accordance with the Guidelines for Landscape and Visual Impact Assessment (The Landscape Institute and Institute of Environmental Assessment, 2<sup>nd</sup> edition 2002), which forms the recognised methodology.
- 5.81 The application details illustrate the assessed Visual Envelope and are accepted as an accurate representation. A 5km study area is plotted and the assessment recognises that the development will be visible from viewpoints outside the 5km radius of the study area, although in these views the structures will be seen in the context of other large scale structures at Severnside and Avonmouth. The application indicates the key viewpoints identified, which are assessed with regard to magnitude of impact within the report.
- 5.82 The conclusions drawn with regard to visual impacts caused are acceptable, however the contribution the site makes at present in terms of green infrastructure is underplayed. The storage tanks occupied only a small area of the overall site, the larger part of the site has become colonised by scrub and small areas of woodland over time and now forms an important green link between the Severn Estuary and the agricultural land to the east.
- 5.83 The document recognises that the addition of a significant building and its associated infrastructure will impact on both the character and fabric of the wider landscape, but states that the proposal is appropriate for the location. As stated in the assessment, the proposed development would be visible over a wide area, as it is a big building with 2 co-located stacks. However it is argued that the impact of the proposed development is limited by both the existing structures to the north and adjacent Sea Bank Power Station.
- 5.84 The EIA regulations 1999 requires an outline description of the main alternatives considered and reasons for the final choice of site. Consequently

the ES includes details of the site selection process. The site was identified in 2008 following an extensive site search and appraisal study.

- 5.85 The proposed site provides an established green corridor and there is potential to develop further links to the adjacent Severn Way footpath and National Cycle route, via the site. The scoping report requested that potential impacts on the amenity value of these routes are assessed as part of the EIA, however this is lacking in the assessment.
- 5.86 The conclusions of the landscape and visual impact assessment within the ES, regarding the proposal are considered to be acceptable, however the qualities of the existing site and the positive contribution it makes within the wider landscape, is not fully recognised. The fundamental site selection is disputed, and it is considered that there are more favourable sites within the Severnside area which could better accommodate this scale of development. It is considered that this site forms a strategic green link to the Estuary and should be retained if possible and enhanced to reinforce the biodiversity of the area.
- 5.87 It is considered by the Landscape Officer that the proposals need to be viewed in context with proposed and existing sites in the vicinity, including the recent Bristol City Council application for the Viridor site, the Severn Road Resource Recovery Centre, on land to the south and also the recently consented scheme wind turbines scheme, 220m directly west of the Viridor site. The cumulative impacts should both energy recovery schemes go ahead, combined with the wind turbines scheme, will be significant.
- 5.88 Further Information: Cumulative Impact Assessment:  
A Cumulative Impact Assessment has subsequently been received in line with previous comments and request for further information. The supporting information includes an assessment of the anticipated cumulative impacts of the proposals assessed against the adjacent developments, both existing and proposed. These adjacent projects comprise Seabank Power Station, adjacent to the southern boundary of the site, Castle Cement Batching Plant, Churngold Inerts Recycling Facility, Avonmouth Resource Recovery Park, Severn Resource Recovery Park (Viridor site), proposed on Bristol City Council land to the south, Eon Biomass Plant and Heliuss Biomass Plant. The report provides detailed information on the visual and environmental impact of each of these sites and their combined effects. The Council's Landscape Officer has further assessed this submission.
- 5.89 It is considered that the report emphasises the 'brownfield' status of the site throughout, however it should be recognised that in fact only a small part of the site is actually 'brownfield'. As previously stated, the larger part of the site has become colonised by scrub and small areas of woodland over time and remains 'greenfield', being grazed and containing semi-natural habitat. In view of the industrial context of the area, this site remains one of only a few such areas and therefore the visual importance of this green link should not be underestimated.
- 5.90 The report concludes that the Viridor site, if given permission, will have the most significant visual impact due to it's scale and proposed stacks. However it is claimed that when seen combined, the two developments will be 'perceived

together as sculptural elements within an evolving 21<sup>st</sup> Century industrial landscape'. It also concludes that in landscape and visual terms, the development will contribute to the enhancement of the character and nature of the area.

- 5.91 The additional information submitted recognises the magnitude of the cumulative impact, should both the Viridor and SITA schemes go ahead, but qualifies this by saying that the impact caused is acceptable within the industrial context. Whilst the industrial context of the site is recognised, it is considered that the cumulative effect of the two waste recovery centres and the other projects identified in the assessment will increase the prominence of built features and inevitably effect the rural character of the surrounding land to the east.
- 5.92 Reservations regarding the site selection also remain and it is considered that the site represents an important strategic gap through the industrial land uses and links the Estuary with land to the east.
- 5.93 Notwithstanding this, it is considered that the Indicative Landscape Masterplan, submitted with the original application, provides an indication of proposed landscaping, which should provide a good level of mitigation for the scheme. This includes proposed species rich grassland, ponds and green infrastructure planting, including the retention of the existing vegetation on site. Should approval be granted for the scheme, further detail would however be required to bolster and provide greater detail the existing landscape provisions.
- 5.94 Transportation  
The broad strategic and sustainability principles of the site in relation to transportation are discussed in the relevant section above. In terms of more detailed development criteria of the actual accessing and egressing of the site and any impact upon the local surrounding highway network, Policy T12 of the South Gloucestershire Local Plan and Policy 24 of the South Gloucestershire Minerals and Waste Local Plan seek to satisfactorily control and address the impact of vehicle movements associated with such proposals. The issue for consideration is therefore whether the proposal would be acceptable in highway terms, in respect of any access proposed and the level of any additional traffic generated on the local highway network as a result of the proposal, and whether any mitigating measures may be used to address any concerns.
- 5.95 It is clear from the assessment undertaken that the longer term intention is to import a significant proportion of the waste to the facility via an existing railhead that will need refurbishing and licences etc from the rail authority which isn't guaranteed. In line with good practice the Transportation Assessment has acknowledged the aspirations to utilise rail (which will bring benefits both in scale and reduced transport costs to the applicant and hence will be economically attractive), but as they are not in a position to provide the rail link with approval of the Rail Authority the assessment has been undertaken on the basis that no rail access is provided and hence represents a worst case scenario.

- 5.96 The site is accessed of the A403 coast road, and will be accessed via a new roundabout junction on the A403, leading onto a spine road serving the development with a priority junction leading into the site itself. This access arrangement is considered appropriate to serve the development; no objection is therefore made to the form and type of junction proposed to serve the development.
- 5.97 The impact of the development on both the local and strategic highway network has been assessed based upon both existing traffic levels, but also in negotiation with the Developers highway consultant committed development not yet on the road network such as the Helius Biomass Power Plant and the Deep Sea Container Port both located within Bristol Port have also been included. This coupled with a worst case scenario in terms of servicing the site gives a robust prediction of the impact of the development upon the local highway network.
- 5.98 The site will operate 24hrs a day, as such it is feasible to plan ahead in terms of minimising the number of vehicle movements in the network peak hours, notwithstanding this the impact on the main junctions along A403 is minimal with an increase of 1% predicted in morning and evening peak hours when the network is at its busiest. Analysis of these junctions indicates that even with increased vehicle movements the facility would be operating well within capacity.
- 5.99 A Safety Audit of the proposed roundabout junction and site access has been undertaken which has highlighted a number of small issues which if the proposal is approved will have to be incorporated into the final design, the main issue highlighted was the lack of illumination on the approach to the roundabout. A travel plan has been submitted in support of the development, but given that the majority of traffic movements' result from the operation of the site, this has focussed upon the staff running the site.
- 5.100 Following the Sites Inspection sub-committee concern was raised over the split of refuse coming to this site from areas other than the South Gloucestershire administrative boundary; it is clear that the volume of waste required to operate the site efficiently that not all of the waste will come from within South Gloucestershire administrative boundary. This point is recognised within the Transport Assessment and other documents in that reference is made to the majority of waste being transported from Waste Transfer Stations situated throughout the West of England. No break down within has been provided within the information received from the developer on this breakdown.
- 5.101 In conclusion, there is no transportation objection to this proposal subject to inclusion of details relating to the following;
1. Access strategy as proposed and identified on submitted plan no. STH2263-03.
  2. A routing agreement is also required to prohibit delivery vehicles both during the construction phase and subsequent site operation from utilising the B4064 through Pilning and the Severn Road through Hallen.
  3. Provision of a travel plan co-ordinator prior to first use of the site for generating energy, together with a revised travel plan to reflect that the site is

also being promoted as a 'visitor attraction'.

5.102 Archaeology

Policy L11 of the South Gloucestershire Local Plan and Policy 18 of the South Gloucestershire Minerals and Waste Local Plan seek to ensure the protection of sites of archaeological importance and that the issue of the potential presence of archaeological interest is adequately addressed. In this respect the issue is whether satisfactory measures are in place to address any archaeological interest or potential archaeological interest.

5.103 The site lies within the archaeologically sensitive area known as the North Avon Levels and as such is covered by Policy L3 paragraph 4.45, and L11; and a SPG Archaeology and Development in the Severn Levels. Archaeological investigation in the surrounding area especially that on the Seabank power station and associated pipeline has shown that archaeological structures and deposits survive to a considerable degree in the surrounding area and that within the application area these may be of national importance.

5.104 A desk based assessment of the site was carried out by Cotswold Archaeology in 2009, they conclude that archaeological deposits and structures of mainly prehistoric date are likely to survive on the site but there has been considerable recent un-quantified disturbance which would affect the degree of survival of the archaeology. The desk based assessment suggests that a mitigation strategy can be worked out for the site but the uncertainties about the degree of survival make this suggestion premature.

5.105 Therefore in order to properly inform the archaeological and historic landscape implications of the proposed development an archaeological evaluation by trial excavation was required prior to determination. A Written Scheme of Investigation (WSI) was subsequently agreed and the works undertaken. The work has fulfilled the pre-determination archaeological needs of the site. Should the application be approved then a condition which would involve a further scheme of archaeological work for the site would be required.

5.106 Design and Access Statement

The Design and Access Statement submitted with the application is considered to demonstrate that the applicant has adopted a design approach consistent with the Council's Design Checklist Supplementary Planning Document.

5.107 Use of Energy and Sustainability

The energy and sustainability issues and merits relating to the site are discussed in detail in the relevant sections above.

5.108 Improvements Achieved to the Scheme

- Details of connection to national grid will be requested in advance in order that the site's energy from waste potential can be realised from the off-set.
- A scheme will be required demonstrating that all options for the recycling of bottom ash can be explored and where possible implemented, avoiding the

need for material to be sent to landfill.

- The site will be constructed incorporating a scheme that will enable the future use of the railhead

- Prior and ongoing requirement for investigations to potential for a scheme of heat transfer and implementation where demonstrated to be practical, this will further enhance the efficiency of the site in terms of utilising a heat by product generated from the process.

#### 5.109 Section 106 Requirements

In relation to the issues raised by this planning application, consideration has been given to the need for a Section 106 Agreement. Circulars 11/95 and 05/2005 relate to the use of planning conditions and planning obligations under Section 106 of the Town and Country Planning Act (as amended). Circular 05/2005 particularly advises that if there is a choice between imposing a condition and entering into a planning obligation, the imposition of a condition is preferable. In this instance, planning conditions are the most appropriate, and a Section 106 Agreement is unnecessary. It is considered that the proposed highway works i.e. the proposed roundabout providing access to the site can be secured by a Grampian condition, subject to meeting appropriate highway requirements. These highway works are a necessary prior requirement of the proposed development that would facilitate access to the subsequent spine road and access to the site, which would be on land within the applicants control.

## 6. CONCLUSION

- 6.1 In accordance with Section 38(6) of the Planning and Compulsory Purchase Act 2004, Local Planning Authorities are required to determine applications in accordance with the policies of the Development Plan, unless material considerations indicate otherwise.
- 6.2 It is considered that the site meets the relevant, broad locational principles of the relevant provisions and policy criteria for such proposals. In this respect it is considered that the type of facility proposed, taking into account the requirements of the waste hierarchy, diversion from landfill, the generation of energy and the existence of further legislation to control emissions is considered acceptable in principle within the context of existing policy, for the purposes of land use planning consideration.
- 6.3 Notwithstanding the representations received as identified and discussed in this report along with all the relevant policy issues addressed, there remains an outstanding and unresolved objection from the Council's Landscape Officer. The main concerns in this respect are considered to be of loss of a potentially important 'green corridor' with links to the Severn Estuary and the impact, particularly the cumulative impact in respect of other existing, permitted and proposed development within the vicinity
- 6.4 Firstly, in respect of the issues relating to the perceived green corridor it should be noted that the parcel of land consists of previously developed land as far as its previous storage use demonstrates. The site is also notably part of the former ICI 57/58 consents. This essentially gives consent for various

warehouse and industrial uses regardless of this application for waste development. A review of the consents necessitated by Regulation 50 of the Conservation (Natural Habitats & c) Regulation 1994 is referred to in the Ecology section of this report. That section of the report also concludes that it is unlikely that development will adversely affect the conservation objectives of the Severn Estuary SPA/Ramsar or SSSI through a direct loss of habitat. Further to this it is not considered that such a review provides the scope or leverage to suggest that this whole site should not be included in the redevelopment of the area, in any case. In this instance mitigation through providing smaller networks of green corridors biodiversity area within the developed site will need to be relied upon to secure landscape and ecological benefit.

- 6.5 Secondly, in respect of the impact, particularly the cumulative impact of the physical attributes of the development itself, it is considered that the main building itself, which houses the process, does not represent a significant departure from the backdrop of the existing industrial landscape. Again this must also take into account the permission that exists for the site. Whilst the project must be considered one of relatively large scale this must be put in context with the site and surroundings. The building height peak stands at 46 metres, being the apex of the curved roof. The adjacent SeaBank Power station for example has significant flat roof area at 40 metres on several component parts of the site (not including the stacks). It is the opinion of the Planning Officer that, taking into account the industrial nature of the site and the design and scale of the proposed buildings that they would not be out of keeping nor in their own right cause sufficient harm such as to sustain an objection. This leaves the remaining issue of the stacks. In your Planning Officers opinion it is not considered that the visibility potential of the facility in its own right, is a sufficient and sustainable reason for refusal and that harm arising from this visibility would need to be demonstrated. The adjacent stacks at the Power Station, of which there are three, for example are 65 metres in height, are wider at around 6 metres, and are spread over a wider section of land. The difference to stacks the subject of this application represents is therefore approximately 60 metres, incorporating two stacks immediately adjacent to each other at 4 metres wide. Other significant developments in this respect within the Avonmouth and Severnside sector which contribute to the industrial backdrop, include other, albeit lower stacks in connection with cement works, gas holders, pylons and further towards the Avonmouth area cranes and wind turbines along with further proposals for several other waste and energy management sites both existing, proposed and permitted. In this respect the consideration of the areas industrial context, the presence of other high level developments which would also provide a backdrop to the area does not provide a scenario whereby harm or material impact would be such to warrant a refusal of the application on these grounds. It is therefore on balance, taking into account the landscape issues, and weighing them against the other considerations of this report, not considered that they demonstrate significant weight or harm such as to warrant a sustainable objection to the proposal and the proposals are therefore considered acceptable.
- 6.6 The recommendation to grant permission has been taken having regard to the policies and proposals in the South Gloucestershire Local Plan (Adopted)

January 2006 set out above, and to all the relevant material considerations set out in the report.

## **7. RECOMMENDATION**

7.1 That planning permission is granted subject to the following provisions:

1) That authority be delegated to the Director of Planning, Transportation and Strategic Environment to grant planning permission, subject to the conditions set out below and

a) subject to the overseeing of the satisfactory completion of a Habitats Regulations Assessment pro-forma under the Habitats Regulations 1994, by the Councils Ecological Officer, in conjunction and agreement with Natural England and

b) subject to the Environment Agency withdrawing the existing objection in relation to flood risk.

2)- That the application be referred back to Committee should these issues remain unresolved 2 months from the date of this Committee

**Contact Officer: Simon Ford**  
**Tel. No. 01454 863714**

## **CONDITIONS**

1. The development hereby permitted shall be begun before the expiration of three years from the date of this permission.

Reason

To comply with the requirements of Section 91 of the Town & Country Planning Act 1990 (as amended).

2. Prior to the commencement of the development hereby approved an approved connection to the national grid shall be demonstrated to the written satisfaction of the Council.

Reason.

In order to demonstrate the sites energy from waste merits and to accord with Policy 41 of the South Gloucestershire Minerals and Waste Local Plan

3. The commissioning of the Development shall not take place until sufficient plant and pipework has been installed to facilitate the future supply of heat to the boundary of the Site under Condition (4) at a later date if opportunities to do so are identified pursuant to Condition (4).

In order to ensure the capability for further maximising recovery from output of the process are available should further opportunities be identified and to accord with Policy 41 of the South Gloucestershire Minerals and Waste Local Plan.

4. Prior to the Commissioning of the Development, an updated CHP Feasibility Review assessing potential opportunities for the use of heat from the development hereby permitted shall be submitted to the Council for written approval. This shall provide for the ongoing monitoring and full exploration of potential opportunities to use heat from the Development as part of a Good Quality CHP scheme (as defined in the CHPQA Standard issue 3), and for the provision of subsequent reviews of such opportunities as necessary. Where viable opportunities for the use of heat in such a scheme are identified, a scheme for the provision of the necessary plant and pipework to the boundary of the site shall be submitted to, approved in writing by, and deposited with the Council. Any plant and pipework installed to the boundary of the Site to enable the use of heat shall be installed in accordance with the agreed details.

Reason.

In order to ensure the capability for further maximising recovery from output of the process are available should further opportunities be identified and to accord with Policy 41 of the South Gloucestershire Minerals and Waste Local Plan.

5. Prior to the commissioning of the development hereby approved, a feasibility review assessing potential opportunities for the recycling opportunities for bottom ash from the facility shall be submitted to the Council for written approval. This shall provide for the ongoing review of potential opportunities to identify suitable recycling projects.

Reason.

In order to ensure the capability for maximising recycling and reducing material sent to landfill is investigated and to accord with Policies 36 and 41 of the South Gloucestershire Minerals and Waste Local Plan.

6. Prior to the commencement of the development hereby approved a programme of works relating to the railhead facility within the application area, necessary to enable the site to accept rail deliveries shall be submitted to the Council for written approval. Upon such approval the details shall be implemented prior to the commissioning of the facility hereby approved.

Reason.

In order to secure the rail head benefits of the site, to ensure the facility is able to utilise these benefits from the outset and to accord with Policy 41 of the South Gloucestershire Minerals and Waste Local Plan.

7. No waste other than pre-sorted, residual waste shall be accepted at the site.

In order to ensure that waste is managed within the framework of the waste hierarchy, and to accord with Policy 36 of the South Gloucestershire Minerals and Waste Local Plan.

8. Prior to the commencement of the development hereby approved a detailed landscape and ecology plan shall be submitted to the Council for written approval. Such a plan shall include details of removal and storage of top-soil for reuse, planting

and site preparation, maximising biodiversity through retaining any habitat features and creating new habitat, details of timing and phasing. A suitably qualified ecologist shall be appointed to oversee all ecological works.

Reason.

In the interests of the ecology of the area and to ensure all works are in accordance with the appropriate undertakings and to accord with Policies 12, 13, 14 and 15 of the South Gloucestershire Minerals and Waste Local Plan.

9. Prior to the commencement of the development hereby approved requiring an ecological management plan for the site to sympathetically manage those features identified in the landscape and ecological design, shall be submitted to the Local Planning Authority for written approval. Management of the site should thereafter be carried out in accordance with the details approved.

Reason.

In the interests of the ecology of the area and to accord with Policies 12, 13, 14 and 15 of the South Gloucestershire Minerals and Waste Local Plan.

10. Prior to the commencement of the development hereby approved an ecological monitoring strategy/programme of all species/ecological works be drawn up and submitted to the Local Planning Authority. Monitoring shall be at a frequency to be agreed and for a period of 5 years after the relevant phase of work/development unless otherwise agreed by the Council in writing. Such a programme should include an undertaking to alter any management prescriptions previously agreed or carry out remedial works if deemed necessary, including by the Council or Natural England.

Reason.

In the interests of the ecology of the area and to accord with Policies 12, 13, 14 and 15 of the South Gloucestershire Minerals and Waste Local Plan.

11. Works associated with the construction of the access roundabout on the A403 are to be undertaken outside of the months when "over-wintering birds" are present.

Reason.

In the interests of the ecology of the area and to accord with Policies 12, 13, 14 and 15 of the South Gloucestershire Minerals and Waste Local Plan.

12. Prior to the commencement of the development hereby approved design detail of the waste bunker and the precautions to prevent contamination in the event of site flooding are to be supplied to the Local Planning Authority for written approval.

Reason.

To prevent pollution to the water environment and in the interests of the ecology of the area and to accord with Policies 12, 13, 14, 15 and 20 of the South Gloucestershire Minerals and Waste Local Plan.

13. Prior to the commencement of the development hereby approved the design detail of the culvert over the Red Rhine and access route to the railhead are shall be submitted to the Local Planning Authority for written approval.

Reason.

To prevent pollution to the water environment and in the interests of the ecology of the area and to accord with Policies 12, 13, 14, 15 and 20 of the South Gloucestershire Minerals and Waste Local Plan.

14. Prior to the commencement of the development hereby approved, an investigation and risk assessment, in addition to any assessment provided with the planning application, must be completed in accordance with a scheme to assess the nature and extent of any contamination on the site, whether or not it originates on the site. The contents of the scheme are subject to the approval in writing of the Local Planning Authority. The investigation and risk assessment must be undertaken by competent persons and a written report of the findings must be produced. The written report is subject to the approval in writing of the Local Planning Authority. The report of the findings must include:

- (i) a survey of the extent, scale and nature of contamination;
- (ii) an assessment of the potential risks to: human health, property (existing or proposed) including buildings, crops, livestock, pets, woodland and service lines and pipes, adjoining land, groundwaters and surface waters, ecological systems, archeological sites and ancient monuments; an appraisal of remedial options, and proposal of the preferred option(s).

This must be conducted in accordance with DEFRA and the Environment Agency's Model Procedures for the Management of Land Contamination, CLR 11.

Reason.

To ensure that risks from land contamination to the future users of the land and neighbouring land are minimised, together with those to controlled waters, property and ecological systems, and to ensure that the development can be carried out safely without unacceptable risks to workers, neighbours and other offsite receptors in accordance with Policies 20 and 41 of the South Gloucestershire Minerals and Waste Local Plan.

15. Prior to the commencement of the development hereby approved, a detailed remediation scheme to bring the site to a condition suitable for the intended use by removing unacceptable risks to human health, buildings and other property and the natural and historical environment must be prepared, and is subject to the approval in writing of the Local Planning Authority. The scheme must include all works to be undertaken, proposed remediation objectives and remediation criteria, timetable of works and site management procedures. The scheme must ensure that the site will not qualify as contaminated land under Part 2A of the Environmental Protection Act 1990 in relation to the intended use of the land after remediation.

Reason.

To ensure that risks from land contamination to the future users of the land and neighbouring land are minimised, together with those to controlled waters, property and ecological systems, and to ensure that the development can be carried out safely

without unacceptable risks to workers, neighbours and other offsite receptors in accordance with Policies 20 and 41 of the South Gloucestershire Minerals and Waste Local Plan.

16. The approved remediation scheme must be carried out in accordance with its terms prior to the commencement of development other than that required to carry out remediation, unless otherwise agreed in writing by the Local Planning Authority. The Local Planning Authority must be given two weeks written notification of commencement of the remediation scheme works.

Following completion of measures identified in the approved remediation scheme, a verification report (referred to in PPS23 as a validation report) that demonstrates the effectiveness of the remediation carried out must be produced, and is subject to the approval in writing of the Local Planning Authority.

Reason.

To ensure that risks from land contamination to the future users of the land and neighbouring land are minimised, together with those to controlled waters, property and ecological systems, and to ensure that the development can be carried out safely without unacceptable risks to workers, neighbours and other offsite receptors in accordance with Policies 20 and 41 of the South Gloucestershire Minerals and Waste Local Plan.

17. In the event that contamination is found at any time when carrying out the approved development that was not previously identified it must be reported in writing immediately to the Local Planning Authority. An investigation and risk assessment must be undertaken in accordance with the requirements of condition 14, and where remediation is necessary a remediation scheme must be prepared in accordance with the requirements of condition 15, which is subject to the approval in writing of the Local Planning Authority.

Following completion of measures identified in the approved remediation scheme a verification report must be prepared, which is subject to the approval in writing of the Local Planning Authority in accordance with condition 16.

Reason.

To ensure that risks from land contamination to the future users of the land and neighbouring land are minimised, together with those to controlled waters, property and ecological systems, and to ensure that the development can be carried out safely without unacceptable risks to workers, neighbours and other offsite receptors in accordance with Policies 20 and 41 of the South Gloucestershire Minerals and Waste Local Plan.

18. A monitoring and maintenance scheme to include monitoring the long-term effectiveness of the proposed remediation over a period of 3 years, and the provision of reports on the same must be prepared, both of which are subject to the approval in writing of the Local Planning Authority.

Following completion of the measures identified in that scheme and when the remediation objectives have been achieved, reports that demonstrate the

effectiveness of the monitoring and maintenance carried out must be produced, and submitted to the Local Planning Authority.

This must be conducted in accordance with DEFRA and the Environment Agency's Model Procedures for the Management of Land Contamination, CLR 11.

Reason.

To ensure that risks from land contamination to the future users of the land and neighbouring land are minimised, together with those to controlled waters, property and ecological systems, and to ensure that the development can be carried out safely without unacceptable risks to workers, neighbours and other offsite receptors in accordance with Policies 20 and 41 of the South Gloucestershire Minerals and Waste Local Plan.

19. Prior to the commencement of the development hereby permitted a routing agreement prohibiting delivery vehicles both during the construction phase and subsequent site operation from utilising the B4064 through Pilning and the Severn Road through Hallen, shall be submitted to the Council for written approval and thereafter adhered to at all times.

Reason.

In the interests of highway safety and to accord with Policy 24 of the South Gloucestershire Minerals and Waste Local Plan.

20. Prior to the first use of the site for generation of energy details a travel plan coordinator shall be appointed and notified to the Local Planning Authority and a revised travel plan to reflect the fact that the site is also being promoted as a visitor attraction shall be submitted for written approval.

Reason.

In the interests of restricting the highway impact and to accord with Policies 24 and 25 of the South Gloucestershire Minerals and Waste Local Plan.

21. Prior to the commencement of the development hereby approved further landscape details shall be submitted to the Council for written approval. Such details should consist of a full 1:200 scale detailed planting plans, indicating species, sizes and densities of planting, Details of proposed ponds, marginal planting and grassland, Specification and location of all protective fencing, to be erected at start of works on site, to protect retained existing vegetation, Site levels and sections, Landscape and ecological management plan.

Reason.

In the interests of residential amenity and to accord with Policy 6 of the South Gloucestershire Minerals and Waste Local Plan.

22. Prior to the commencement of development a programme of archaeological investigation and recording for the site shall be submitted to and approved by the Local Planning Authority. Thereafter, the approved programme shall be implemented in all respects, unless the Local Planning Authority agrees in writing to any variation.

Reason

In the interest of archaeological investigation or recording, and to accord with Policy 18 of the South Gloucestershire Minerals and Waste Local Plan.

23. Prior to the commencement of the development hereby approved, a program of the highway works necessary to facilitate the access to the site shall be submitted to the Local Planning Authority for written approval, and thereafter implemented in accordance with the approved details.

In the interests of highway safety and to ensure a satisfactory form of development that complies with highways requirements, in accordance with Policy 24 of the South Gloucestershire Minerals and Waste Local Plan.