ITEM 1

APPLICATION NO: P/2002/1016 **DATE: 23/08/2002**
PROPOSAL: EXTENSION TO EXISTING LANDFILL SITE, CONTINUED RECEPTION OF WASTE, CONTINUED REMOVAL OF ENGINEERING MATERIAL AND RESTORATION
LOCATION: PWLLFAWATKIN WASTE MANAGEMENT FACILITY RHYD Y FRO, PONTARDAWE , SWANSEA SA8 4RX
APPLICANT: SHANKS WASTE SERVICES
TYPE: Full Plans

a. Structure/Local Plan Policies

West Glamorgan Structure Plan (Review No. 2)
Policy EQ13 – Criteria for waste disposal sites.

Northern Lliw Valley Local Plan
Policy EQ14 – Criteria for tipping sites.

Deposit Draft Unitary Development Plan for Neath Port Talbot
Policy Part 1, Policy 25, Policy W1 – Collection treatment and disposal of waste.
Policy ENV15 Air Quality.
Policy ENV17 General considerations.
Policy ENV18 – Engineering works and Operations.
ENV30 – Environmental Quality and Amenity.

b. Other Policies

Planning Policy Wales (March 2002).
Wise About Waste: The National Waste Strategy for Wales (June 2002).
Tan 11 – Noise
TAN (Wales) 21 – Waste (October 2001).
Regional Waste Plan for South West Wales Region November 2003.
Mineral Planning Guidance 11, - The Control of noise at surface mineral workings.
Local Biodiversity Action Plan for Neath Port Talbot.

c. Relevant Planning History

6702 – Ovoid Plant – Approved.

74/294 – Ovoid Plant – Withdrawn.
76/276 – Refuse tip (Lliw Valley Borough Council) – Approved 21/12/76.
78/261 – Extension to refuse tip – Withdrawn.
80/351 – Continuation of Use as Refuse Tip (Lliw Valley Borough Council) – Approved 28/10/80.
92/442 – Continuation of Use as Refuse tip to private developers – Approved 3/12/92.
94/505 – Relocation of Reception area and Civic Amenity site – Approved 9/3/95.
95/502 – Diversion of Upper Clydach River to rationalise landfill operation and secure agreed restoration – Approved 14th March 1996.
P03/0934 – Minor variation to landform to include additional tipping – Approved 30/9/03.

d. Responses to Consultations

Number of properties consulted: 19

The application has been advertised in the press and notices posted on site and within the local communities of Cwmgors, Gwaun Cae Gurwen, and Rhydyfro/Pontardawe. The application was re-advertised when an amended Environmental Statement was received in August 2003 and when additional information was further publicised in February 2004. Secondary consultation and publicity was also carried out in August 2003 and February 2004.

Number of replies received: 371

Of these a total of 204 "pre-printed" letters have been received objecting to the application because of concerns about the impact on the health and safety of the people and young children of the villages.

A further 167 letters have been received objecting to the development the grounds are summarised below:

1) Health Issues

a) Concerns with regard to the potential effects on unborn babies and potential congenital abnormalities.
b) Alleged that pregnant women officers of the Environment Agency were informed not to visit Pwllfawatkin site.

c) The Small Area Health Statistical Unit illustrate concern about elevated levels of congenital anomalies and levels of low birth weights amongst those living within 2km of landfill sites.
d) Reports published in the Lancet, and the investigation by the National Assembly for Wales into the Nantygwyddon Landfill site indicated that such landfill sites were a health hazard.
e) Concerns that the waste ash will endanger the health of the people living in the villages.
f) Concerns at what type of wastes that are transported in lorries past our homes.
g) In view of the Government declaration on health impact on people living near landfill sites, it is requested that the application be filed until the results of the Government Inquiry by the Health Protection Agency is published.
h) Concerned about the waste and dioxins imported from Crymlyn Burrows and increasing quantities of industrial waste and asbestos.
i) Many of the issues in relation to the Nantygwyddon site which was closed by the Welsh Assembly Government are predominant in Pwllfawatkin.
j) Concerns that the waste ash will endanger the health of the people living in the village near the tip.
k) The planning application should not be considered until a full and thorough investigation of all public health concerns are prepared and made public.
l) Doubt cast on the evidence produced in the Health Impact Assessment and the health of the community must outweigh any commercial consideration.

2) <u>Traffic and Transportation</u>

a) Roads through the villages of Pontardawe/Rhydyfro, Cwmgors and Gwaun Cae Gurwen are not suitable for traffic and make it dangerous for pedestrians and normal car owners.
b) The heavy goods vehicles cause long queues and caused damage to Gelligron Hill and continued disturbance to residents along its route.
c) The highway network is totally inadequate and in a poor condition with the additional volume of opencast traffic will make matters worse.

3) <u>Nuisance</u>

a) Local residents detrimentally affected by odour, flies, seagulls, and noise and vermin.

b) Offensive odour permeates through the valley causing nausea and headaches.
c) The community have suffered enough of the tip over the last two decades.
d) The development will be within 500 yards of the village and will affect the people with air pollution smell and extra lorries.
e) Noise levels will be intolerable.
f) The extension would bring the site far too close to the surrounding villages.
g) Continuing effects of litter from the site.
h) Concerns on the level of dust that is emanating from the site and the results of the dust monitoring results carried out on properties particularly to the north of the site.

4) Safety Issues

a) The position of the tip is a concern because it is on a hillside, adjacent to a mine with poor road access.
b) Concerns expressed with regard to the heavy rainfall in the area and extensive underground workings.

5) Management of site

a) Other agencies such as the Environment Agency lack sufficient resources to manage shortcoming and deficiencies in the management of the site.
b) No confidence in the Environment Agency and its officers.
c) Concerns of the potential to bring hazardous waste into the site.
d) That the licence is limited to the wastes identified in the planning application.
e) The local people did not expect carcasses, asbestos and other dangerous materials to be dumped in the tip.

6) Water Pollution

a) The location of the site is a gross misjudgement with possible leakage into the Upper Clydach River polluting a length of river use for recreation by children at the Cwmdu beauty spot.
b) Contamination of our water well will be caused by the toxic and bio-hazard material being deposited.

7) Visual Amenity

a) The existing landfill (landraise) site has changed the landscape and is also in a vulnerable position.
b) The landfill site is a towering mountain in the landscape.
c) Views of mature woodland will be affected.
d) Adverse visual impact cannot be accepted at the "Gateway" to the Black Mountain.
e) The tip has turned from a landfill to a landraise site and is an eyesore to what was a beautiful area.
f) Other areas such as the Lower Swansea Valley is being restored whilst our beautiful valley is deliberately defiled for the sake of profit.
g) The area will have to suffer for over 20 years because of the timescale of the development and post settlement before any trees and landscaping is done.
h) Please protect the Upper Clydach River and Valley and its people from any further pollution by refusing any more destruction of the environment and the quality of life of the inhabitants.

8) Ecology

a) Concerns on the impacts of the development on the ecology of the area and protected species.
b) Suggested that the site is designated as a Site of Special Scientific Interest.

9) Sustainability

a) The site should be closed as it accepts waste from all over the country as well as England.
b) Why should we be accepting other peoples waste?
c) The operator has reneged on it's promise not to import waste further than a 10 mile radius and also have a poor track record.
d) Why do we need a landfill? More resources should be put into recycling all material sent to Crymlyn Burrows.
e) The area is not a dumping ground for this county or the rest of the U.K.
f) There are no benefits to the developments only benefits to other areas.
g) Reports on wastes should also be complete before determination.

10) Further extension of the site would be inappropriate in an area already blighted by previous industrial activity.

11) The development will have a negative effect on tourism, manufacturing and housing.
12) It is suggested that because the application is for an extension it should stand alone as a separate application to the existing site.
13) The application should be considered on its own merits and not on the existing practice of the site.
14) Question raised on the archaeological assessment.
15) Suggestion that if permission is granted that a financial guarantee is provided for the restoration of the site and start and end dates provided in any consent along with a community fund.
16) The development will bring few jobs and only an abhorrent and hideous site of the tip.
17) Local feelings should be taken into account.
18) The development contradicts the Communities First Programme.
19) Purchased property and invested significant sums of money modernising. The landfill site would affect the value of the property and render it unsaleable.

The Rhydyfro and Gelligron Action Group object and are concerned with the speed and number of lorries going through the village, such vehicles mounting pavements etc. The landfill has also devalued properties, and concerns with regard to fly ash being deposited and transported to the landfill.

The Campaign for the Protection of Rural Wales object to the development because the tip is already hideous and a further extension is unacceptable, tipping material comes from sources and other areas, the access lane is unacceptable for lorries and litter is blown off lorries, disfiguring the environment. The collapse of the roadway in Pontardawe also illustrates that the road is suffering. Odour problems are also ruining a recreational area giving rise to health risks.

The Upper Amman Valley Enterprise Communities First Partnership also object to the development citing that the developer has reneged on previous statements in 1996 allowing waste to come from far and wide, health hazards from poisonous mountain, the effect of lorries on amenity and health, effect on the structure of Gelligron hill, inaccuracies in the dust assessment, mis-management at the site, and potential pollution problems. They also refer to the need to take into account of the waste strategy for the area.

Peter Black AM has expressed concern at the smell and litter from the site which will have a negative impact on residents. He also requests the

Council to ensure that in any consent conditions are attached to improve the access lane and management plan for smell and litter adopted.

County Councillor Kevin Madge, local member for Garnant in Carmarthen objects to the development, given the dangers of traffic to children and the elderly, impact on fragile ecology, impact on local post-medieval archaeological sites, the visual impact on the valley, vermin, odour, health concerns, accuracy in the Environmental Statement and need for further consultation.

The Cwmgors and Gwaun Cae Gurwen Environmental Watch Group have submitted a substantial document as an objection to the development. Their reason for objecting are summarised as follows:

- In 2002, Shanks, in a dash for cash, exhausted a capacity which would have served the municipal waste landfill needs of people who reside within NPTCBC for between 4 and 8 years.

- A failure of the applicant to identify actual tonnages from a single unitary authority in the amended environmental statement.

- State that information submitted in the environmental statement contains material inaccuracies of sufficiently serious a nature as to be open to legal challenge. These include: statements on importation and tonnages of waste deposited within the site in and around the year 2002, and the vast amount of this importation of around 246,500 tonnes come from outside the Neath Port Talbot area and did not serve local circumstances as the applicant claims.

- Access along a narrow country land off the A474 is totally unsuitable based on the projected figures for importation, the number of bigger, larger engined and heavier HGVs which prohibits the use of the land by pedestrians, horse riders and cyclists, and prevents access to common land and recreational amenity.

- It is suggested that given the inaccuracies in the dust monitoring information provided within the ES, that the Council have no alternative but to reject the application for fear of legal challenge and that it is an offence in law to knowingly provide or accept data which is known to underestimate impact of the quality of life of the public.

- Officers have failed to ensure the provision of sufficiently timely, accurate good quality data vital for councillors to make a valued judgement on the impact of tipping operations on the health and environmental of the local community.

- Where there is any doubt with regard to adverse impact, then officers, officials and councillors must invoke the precautionary principle in order to protect the quality of life of people residing within the Borough.

- The Environment Agency for Wales must start taking seriously very long timescales for which mixed waste landfill sites provide a threat to the environment and require commensurately large financial provision before operations commence.

- The tip operator exercises bad neighbour policy exploiting loop holes in regulatory functions, whereas authorities in other areas of England and Scotland have taken action against the same company.

- It has been detected in the past that the company has handled asbestos at the site in such a way that could cause serious harm to human health, and that the company's own environmental management systems failed to detect the breach and the Environment Agency have yet to prosecute the company.

- The company have a string of convictions regarding disposal of waste in other parts of the country, whereas they will concentrate their operations where planning and licence conditions are weakest and where they have a cosy relationship with local regulatory and enforcement officials.

- The council's policy to accept waste from the other areas is not sustainable as it is a bias against the quality of life of the residents and ratepayers within the Neath Port Talbot area.

- The increase in tonnages over the last three years has inflicted damage on the road network. This includes potential damage to the Gelli gron Hill in Rhydyfro.

- The proposed development will have a material impact on the visual and recreational amenity by creating two large tips.

- The NPTCBC and the operator do not operate waste management in a sustainable way and do not comply with the self-sufficiency, proximity or precautionary principles.

- The geology and hydro-geology of the area and previous mining will pose a threat to the control of the pollutants within the tip structure.

- There is a serious threat to health by landfill sites indicated in a number of research reports, particularly in terms of a risk to foetuses and congenital abnormalities. The Council must learn from the mistakes at Nant-y-Gwyddon tip.

- Precautionary principle must be adopted to prevent the elevated emission of noxious diesel exhaust emissions, particularly by the movements of heavy goods vehicles along steep gradients etc, which are a threat to public health as indicated by research.

- The Council operates a policy of incineration, which will double the amount of dioxins produced within the area.

- Quality of life considerations must be put before the council interests and needs of outsiders.

- The operators have a contract to dispose of dioxins, which could allow 1,000 tonnes of dioxins to come to Pwllfawatkin.

- The NPTCBC should decide what is in the best interests of the quality of life of their own residents and communities rather than through regional groups and other policy making organisations.

- In conclusion, the proposal fails on the proximity and self-sufficiency principles, the best practical environmental option, and other sustainability criteria.

- They call on the duly elected representatives to put an end to this environmental terrorism of our communities in order that we can help sustain, and do not prejudice the needs of future residents of the Borough.

Statutory Consultees:

Carmarthenshire County Council – No objection to the application.

Glamorgan Gwent Archaeological Trust Ltd – have considered the archaeological section within the environmental statement and agree with its conclusion that it is unlikely that the proposed development will have an adverse impact on any archaeological features, and therefore do not have objections to the positive determination of the application.

Transco – have no apparatus affected by the proposed development.

Western Power Distribution – have identified services on or adjacent to the site, but such services do not conflict with the proposals.

The Coal Authority – have no adverse comments to make on the proposal.

The Regional Planning Adviser for Agriculture and Rural Affairs – has indicated that given that the proposals are for restoration and after care to amenity use, it is up to the planning authority to consider if this is an appropriate after use for the development.

Welsh Water – have no comments to make on the planning application.

Pontardawe Town Council – object to the development on the following grounds:

(a) The increase in the volume of traffic to and from the site.
(b) Inadequate roads to accommodate the increased traffic.
(c) Inadequate access road on to site to accommodate the extra traffic.
(d) An adverse environmental impact as this site will now be coming close to a residential area.

They also expressed the following concerns.

- The traffic impact on the road, especially Gelligron Hill, which is already unstable and causing concern to the residents due to the larger and larger vehicles being used for the transfer of waste. Hedges will suffer due to the fumes generated by these lorries. It is also felt that the access road from the M4 is not adequate enough, especially after the vehicles leave the A4067 and then travel on the A474 through Pontardawe and Rhydyfro.

- The Council feel that it is not necessary to import waste from long distances for dumping at Pwllfawatkin, when there is, no doubt, closer landfill sites to the said engendered waste. It is felt that each Unitary

Authority should be responsible for its own waste and dispose of the said waste within its own boundaries.

- Adequate checks should be made to ensure that lorries do not carry waste not covered by the licence held by the site.

Gwaun Cae Gurwen Community Council – object to the development because of the environmental issues that surround this application, and on the following grounds:

- Continuation of the extension would bring the landfill site closer to the village of Cwmgors and the environmental issues which concern our council and residents are smell, noise, traffic impact, visual impact on the countryside, duration of a further fifteen years etc., these are just a few to mention.

- Transport would commit on average 92 lorries a day (conservative estimate), which would add to further environment problems in both dust and fumes pollution (transport being second worst for Co2 emissions) which with further deterioration of road surfaces which Neath Port Talbot County Borough Council cannot afford to maintain at present.

- It has also been brought to our attention that there are mine workings in the vicinity of the proposed extension and any leak from the landfill site would affect the water table.

- The whole community is totally against the extension because it has suffered many years of environmental problems and are immovable that the extension is NOT granted.

The Countryside Council for Wales – have made comments on ecological impacts of the development and the restoration strategy for the site, however, they do not have any objections on ecological grounds. Whilst not objecting to the development, they express some concern as to the visual impact of the proposal.

Head of Public and Transport Services (Highway Observations) – has no objection to the proposal, however, improvements and/or traffic lights will be required to the site entrance and access road leading from the A474 to the site, a limit on the number of vehicles per day visiting the site to 125, improved signage to the tip and access point, and the provision of a traffic regulation order on Swansea Road, Pontardawe.

The Environment Agency – has no objections to the proposal subject to conditions.

The Head of Environmental Health and Trading Standards – No objections subject to conditions.

National Public Health Service for Wales on behalf of the Local Health Board – have asked the planning committee to consider two issues carefully.

1. The movements of HGV's in any locality is a health hazard from injury, noise and pollution, and they would recommend that the Council considers how to minimise the risks from this aspect of the application by imposing conditions on any consent that is granted.

2. That it is apparent that the local community, which is recognised as deprived by its Communities First status, has a poor relationship with the site operator, and possibly the Planning Authority too. We have found in other areas of Wales that where this has been a problem the use of Facilitated dialogue such as promoted by the Environment Council has enabled the matter to be taken forward in a constructive way by mutual consent. We would urge the Council to make the participation and arrangement of such a process a condition of any consent issued. If such a condition was made then the NPHS and LHB would be delighted to assist the Council.

The Professor of Public Health Medicine at University of Wales Swansea comments are summarised as follows:

None of the options for the destruction of waste is entirely risk free. The knowledge of the toxic effects of chemicals is very limited and there is no known safe level to exposure and the magnitude of risk and acceptability of risk to the general public are not closely related. Governments will often produce regulations which permit processes that may pose a risk to the general public of around 1:100,000 to 1:1,000,000 and deem this to be unacceptable in the interests of economic development, local people often have a very different view and may consider any increase in risk to be acceptable.

A recent report "Waste Management and Public Health, the State of the Evidence" published by the South West Public Health Observatory in 2002 concluded that the evidence for any health outcome in relation to nearby landfill is insufficient to come to a conclusion. This does not mean that

landfills can be considered safe but that the studies they reviewed which reported health effects were deemed to be open to other possible interpretations.

He summarises the following 3 studies. Eurohazon in 1998 looked at pregnancy outcomes in women living within 7km of 21 hazardous waste landfill sites in 5 countries. It found that women living closer to such sites were more likely to give birth to a child with congenital anomaly then those living further away. A follow up study looking at hazardous scoring of landfill sites did not detect a dose response relationship. One might have expected that the risk to people living nearby was related to the degree of hazardousness of the sites. However, there were many difficulties with this study and the results cannot be described as definitive.

The Nant Y Gwyddon Study in the Rhondda reported an increase in children born with congenital anomalies within 2km of the site. There as a 1.9 fold excess rate which increased to 3.6 fold in the first two years after opening but decreased to 1.9 times in the following 6 years. Annual mortality rates for all causes, respiratory disease and cancer did not differ nor were there any differences in hospitalisation rates. Because the rates were higher before the landfill opened, it is difficult to interpret the results following the opening.

The SAHSU Study was commissioned to carry out a national study in the UK to study adverse health effects around landfill sites. The study concluded that within 2km there was an excess 1% risk of having a child with congenital anomaly and with an abdominal wall defect a risk of 8%. Curiously the risk of all congenital anomalies and specifically abdominal wall defects was higher before opening then afterwards although the latter remained high. A further analysis was carried out on sites taking in hazardous wastes and found that there was a excess relative rate of 7% for all congenital anomalies but only a 3% for abdominal wall defects.

The Committee on Toxicity of Chemicals in Food, Consumer Products and the Environment (COT) which advises the Government on these issues concluded that the EUROHAZON study which stated that the association of raised risk of congenital anomaly and residence near landfill sites is a causal one needed further investigation because of some limitations in the design. In respect of the SAHSU report COT noted that there were considerable limitations to the information available and that errors in these data could have produced inaccurate results and welcomed further research which is ongoing.

Following the Nant Y Gwyddon Study the Welsh Assembly Government ordered an independent inquiry by David Purchon which recommended that the tip be closed and a landfill gas management system, leachate treatment and surface water collection system be introduced and that further health studies be undertaken. In addition a recent study by SAHSU on cancer incidence around landfill sites (which is the largest study of its kind) found no association between living within 2km of a landfill site for a range of cancers.

In conclusion Professor Lyons states that scientific evidence on the health effects are incomplete, whilst the three studies above suggest that there could be a health link it is also possible that factors which could not be measured (such as personal exposure to chemicals of a variety of other sources or medicines) might be the explanation.

It is not possible to state what effects there might be at any site at this point in time as every site is different and knowledge of such relationships is not sufficiently developed and he is unable to give concrete evidence as to whether health effects could be expected around the Pwllfawatkin site.

APPRAISAL

It should be noted that the application was made in 2002 by Shanks Waste Services, however since that date the site is now operated by WRG Waste Services Ltd.

The Application Site

The site lies some 5km north of Pontardawe on the west side of the Upper Clydach River (see aerial photograph on page 14a). It should be noted the photograph shows an oblique view and the extension site would cover a larger area than the current landfill. The extreme northern boundary of the proposed site lies 500 metres south west of the village of Cwmgors. Access to the site is via a minor road leading to the A474 just north of the former Abernant Colliery. The application site is composed of three elements, namely the existing landfill and civic amenity site, the proposed extension area for landfill to the north, and a former colliery tip to the south which would be utilised for engineering materials and disposal of unsuitable engineering materials and spoil.

The current landfilling operations and associated activities cover an area of approximately 12 hectares whilst the extension site covers an area of some 16 hectares, extending onto land that had formerly been used as a colliery spoil tip (Tip 890). The area proposed for cell construction and waste disposal is 10

hectares. The area to be utilised for some engineering material, Tip 871, occupies an area of some 10 hectares to the south of the unclassified minor road.

To the east of the land for the extension the land is bounded by the Upper Clydach River, and the line of a former railway line with gently sloping pasture land increasing in level towards the A474. Fields and rough grazing land lie to the north whilst there is a steep rise in levels on the western boundary leading up to Bryn Mawr.

The closest settlement is Cwmgors, its southern edge being some 500 metres from the north eastern boundary of the extension area. Rhydyfro lies 3km to the south. The closest residential properties are Nant Melyn Farm 200 metres which is currently unoccupied and a new dwelling under construction at 50 metres further. To the north west, Abercorgi Farm (Nant Cricket) is some 350m from the site boundary and Nant Y Gafaelau Farm 250 metres west of the extension area. A group of three houses lie at a distance of 350 metres to the east and on the eastern side of the A474. The former Old Star Inn, now refurbished into a residential property, lies 400 metres to the north east. The Abernant Centre for Enterprise, a small business unit lies some 600 metres to the south east. Pwllfawatkin Farm which lies 150 metres to the south west is utilised as an office facility by the operating company. Footpath no. 40 leads from the minor road to the west of the site in a northerly direction through Nant Melyn Farm.

The current landfill complex, and proposed extension area lie on the base of the Upper Clydach Valley predominantly used in the last few decades for coal mineral development. The immediate surrounding area is managed as pasture land and occupied by isolated farm properties. The restored Abernant Colliery surface contributes to the restored landform of the area. The moorland on the western valley side is separated from the proposed extension site by a belt of woodland.

Planning History

The existing landfill site was established in the mid 1970's under the operation of the former Lliw Valley Borough Council. The site remained operational until 1992 when the site licence was surrendered. The original landfill had not been engineered to manage landfill gas or contain leachate and was the source of some pollution at the time. Private operators undertook control in 1994 and came to an agreement with the former Lliw Valley Borough Council to relocate some 300,000 tonnes of waste into a modern engineered landfill. Other ancillary engineering works and the development of a civic amenity site was undertaken in 1995.

Planning consent was granted in September 2003 for a minor variation to the landform which incorporated a further waste cell on the western fringe of the existing landfill site. That permission under P.A. Ref. P2003/0934 was implemented in March 2004.

Tip 890, (which forms the proposed extension area), was created pursuant to a planning permission (Ref. 2/2/83/0536/03) granted on 28th March 1984 in respect of Abernant Colliery. Planning permission (ref. 2/2/95/0201/03) to remove material for engineering purposes from Tip 890 was granted on 19th July 1995, with a subsequent extension to December 2000. The approved restoration scheme submitted under the previous tipping consent has still to be completed, and requires the surface to be restored to grassland.

Permission (ref. 2/2/78/0017/03) for Tip 871 to the south of the current landfill area was granted on 4th May 1979 in respect of Abernant Colliery. Permission (ref. P/2000/1417) to re-excavate material from this area for use on the landfill site was granted on 20th February 2001. The approved scheme provides for this area to be restored as grazing land following completion of operations.

The Proposals

See Plan on page 16a.

The application seeks planning permission for the following development.

- The extension of the existing waste disposal operations onto approximately 10 hectares of land (known as Tip 890) creating approximately 1.8 million cubic metres of void space.

- The continued use of the existing site and reception area in connection with the proposed extension area.

- The restoration of the existing landfill site, the proposed extension area and the colliery spoil tip, (Tip 871) to a mixture of woodland and species rich grassland.

- The continued operation of the existing civic amenity site.

An Environmental Statement accompanies the application.

The proposed extension for waste disposal would be a Non-Hazardous landfill in line with the EU Landfill Directive (1999/31/EC) which sets stringent

requirements for landfilling of wastes in Wales. It is proposed to import municipal solid waste, and industrial and commercial wastes. Operations at the site would also be subject to the conditions of the Pollution, Prevention and Control (England and Wales) Regulations 2000 which also regulate the type of wastes that would be permitted into the landfill.

The Landfill Extension Area

The proposed extension facility for landfill would occupy an area approximately 500 metres long and 220 metres wide, a little over 10 hectares, within the extension area of the landfill complex. The landfill facility would be constructed to a linear domed structure the crest running in a north south direction. The highest point of the structure would reach some 204 metres AOD, this being a pre-settlement level. This level would be approximately 36-38 metres above the existing ground level at the central axis of the site.

The crest of the domed structure would vary in height between 204 metres AOD and 195 metres AOD, north to south, over a distance of some 350 metres. Following the anticipated settlement of the engineered structure, it is expected that levels would reduce to a level of approximately 192 metres AOD and 184 metres AOD at the northern and southern end of the crest respectively.

To form the engineered structure, excavations ranging from 8 to 15 metres below existing ground levels may be required to provide suitable construction conditions. The phasing and operational development of this area is considered below.

The Existing Landfill

The development of the existing landfill is regulated by existing planning and other licensing controls. The current structure is permitted to a maximum height 215 metres AOD and an anticipated post settlement level of 205AOD. The side slopes on this structure are proposed to have a gradient of around 1 in 5.

Tip 871 – Colliery Shale Tip

Contrary to original expectations there is unlikely to be a need to extract additional material from Tip 871, over and above that already permitted under the existing consent for the site. The applicants invite the Planning Authority to impose a condition requiring that no further material be extracted from Tip 871 unless a detailed scheme has first been agreed with the Authority in writing. That will allow the opportunity to review the situation should excavations

indicate that the original assumptions were not entirely correct. Unless that happens, however, it is anticipated that Tip 871 will be restored to the currently permitted contours within twelve months of the completion of restoration works on the current landfill.

There is an anticipated importation of around 40,000 cubic metres of unsuitable materials from the extension area of the landfill complex to Tip 871. A review of the restoration contours of the site will be therefore be required although this level of importation is not likely to impact materially on the restoration objectives of Tip 871.

Civic Amenity Site

The Civic Amenity Site is located adjacent to the entrance to the landfill and operates under contract to Neath Port Talbot County Borough Council as one of the Borough's strategic household recycling and disposal facilities. The site receives approximately 3,000-4,000 tonnes of waste per annum.

A one way system operates through the site with vehicles entering and leaving directly from minor road leading from the A474. There are a series of waste bays along the northern side of the site where the public may deposit general waste, with a separate area for green waste. A series of separate containers around the facility are available for specific materials such as scrap metal, newspapers, batteries, asbestos, cardboard etc. The site is manned at all times during opening hours.

Segregated recyclable materials are removed from the site when sufficient volumes have accumulated to appropriate processing facilities. The remaining is transferred to landfill for disposal, normally at Pwllfawatkin itself.

The proposed phasing of the extension area and landfill proposal

It is proposed to create landfill capacity by creating voids above the existing ground level therefore creating a raised area of engineered material and depositing waste in the voids.

The proposed extension area to the site would be developed in five phases (cells) over a period of approximately 10-12 years depending on importation rates. In general, the landfilling capacity would be created by constructing 5 individual cells from the extracted material from the extension area. This area was previously utilised for Tip 890 as a colliery shale deposit associated with the former Abernant Colliery although only a limited amount of spoil was deposited. The cells are to be constructed as a containment landfill where waste

is to be deposited and contained, to prevent uncontrolled migration of the waste by-products such as gas and leachate. Following the preparation work of settling lagoons and drainage, the landfill engineering operations at the extension area would commence in the northern end of the site and would progress southwards. Preparation of cells would also be ahead of each landfill phase. The material extracted will comprise spoil, sands, gravels and clays and will be sorted for use as daily cover in the engineering works and for restoration.

The extracted materials will be used directly in the site development where practical or will be stored in one of three stockpiles areas.

During extraction in Phases 1 and 2 approximately 40,000 cubic metres of spoil is anticipated to be transferred to Tip 871 and approximately 96,000 cubic metres transferred to the current landfill area. This spoil would be used for restoration purposes.

The first stockpile of excavated material would be stored at the southern end of the extension area. Once this reaches a capacity of approximately 100,000 cubic metres the spoil and clay will then be stored in the valley at the northern side of the current landfill. The stream that runs in the valley will be culverted to accommodate the material. No stockpiled material would be placed in close proximity to the mine adit. Surface stockpiles that would be in place for more than six months would be sown to grass.

As landfilling in phase 3 progresses a temporary cap will be placed over the western half of this phase and a further stockpile of excavated materials placed on top for storage. To facilitate the completion of extraction operations in phase 4 and 5 it will be necessary to transfer approximately 64,000 cubic metres from the initial stockpile at the southern end of the extension area to the stockpile on phase 3. The stockpile located on the western side of Phase 3 of the development would need to remain in situ until it was utilised in the later stages of the development.

The stockpile of material located in the valley between the existing landfill and extension area would also be used to complete the final restoration of the site.

The timescale for the above engineering and landfill operations would to a large degree depend on levels of importation however based on an assumed importation rate of some 180,000 tonnes per annum over a 10-12 year period phase 1 would be complete in some 12 months and restored to grass. Phase (Cell) 2 could be complete within a further 24-30 months. The western part of phase 3 would not be restored until the final restoration stage because of

material storage requirements however the eastern embankment of phases 3 and 4 would be restored to grass in a progressive manner within the remaining timescale. The final phase, (cell) 5 would include the redistribution of the stored spoil and engineering material on phase 3 and the complete restoration of the extension area. Depending on the importation rates phases (cells) 3 and 4 would take 5 to 6 years to fill and phase (cell) 5 some 2 years.

Waste Delivery

Waste vehicles would gain access to the landfill site via a short unclassified road, leading off the section of the A474 Trunk Road which runs between Pontardawe and Ammanford. This main site entrance serves as the access and egress for all waste vehicles, general deliveries of goods and movements of site staff. Waste vehicles visiting the site vary in size from vehicles carrying small skips to large bulk containers. An adjacent access point exists as a separate entrance into the Civic Amenity Site.

The Applicants propose to widen the minor unclassified road. There are no proposal to develop rail connections. It should be noted that the rail track adjoining the site has been removed for some considerable distance.

Monitoring of Waste

Waste arriving at the site by road is initially booked in at the weighbridge office, which is operated at all times during site opening hours. No waste vehicles can enter the landfill area without passing through the waste reception area. The weighbridge is currently located approximately 35 metres from the site entrance allowing enough room for vehicles to queue, without backing out onto the public highway. From the weighbridge, waste vehicles are directed to the landfill area or to the vehicle holding area. Site records are kept to show weight, date, time, vehicle registration, waste type, haulier name, customer, and origin of the waste.

Vehicles are directed to the holding area if there is any uncertainty about the nature of the load or to provide random checks on the waste stream. If it is required to sample a waste load or in the case of a random waste, the samples are tested for a number of properties using the on site Waste Input Monitoring Facility (WIMF).

No waste is deposited on site unless:

- it has the correct documentation,

- it arrives within the opening hours,
- the site is adequately manned to deal with the waste type,
- the vehicle has been weighed,
- the waste appears to conform to the description on the documentation and is permitted under the Waste Management Licence or PPC permit.

Landfill Engineering

An engineered containment landfill or landraise site is constructed of multiple elements, dependant upon the sites location and requirements. Basal and side seals, the engineering cap and the restoration cap are all engineered to standards agreed with the Environment Agency in accordance with the Waste Management Licence or Pollution Prevention and Control Permit (PPC). Together these elements form a low-permeability barrier under, around and on top of the waste. Waste Management Paper WMP26B recognises that it is impractical to create a completely impermeable barrier, since all mediums will leak to a finite extent. The levels of leachate and pressure of gas within the landfill must therefore be controlled to prevent external pollution. Details of leachate and gas management systems are described further in this report.

Pwllfawatkin is founded upon superficial glacial clay deposits of varying quality. As a result of this, the boulder clay within the region could not be solely engineered as an acceptable quality liner system. As a result the containment cells at the site have previously been constructed using a combination of engineered clay material, won from the in-situ material of better quality, and a High-Density Polyethylene (HDPE) material.

As a result of the exhaustion of acceptable quality in-situ clay material an alternative liner system has been installed within the existing landfill. This amended liner specification involves the use of reworked of colliery discard in place of clay and a geosynthetic composite liner, which combines plastic and bonded Bentonite to form a barrier with a permeability of 1×10^{-13} metres per second. This will be complemented by a 2mm HDPE liner as used in the previous specification. This method is proposed for the extension.

Throughout the whole construction process for each individual containment cell a rigorous programme of testing of the materials employed is implemented. For the clay or shale parameters are determined by an independent approved laboratory in accordance with BS1377: Parts 1, 2, 4 and 6: 1990.

All clay material placed is engineered with a permeability of 1 x 10^{-8} m/sec or less. The quality of engineering and material is continually monitored during construction by an Independent Quality Assurance Engineer.

All HDPE liner is laid in panels and jointed using seam welding techniques in accordance with the United States Environmental Protection Agency publication 'The Fabrication of Polyethylene FML Field Seams' (EPA/530/SW-89/069). To monitor the quality of construction of these welds a programme of regular destructive and non-destructive tests is carried out.

All of these independent testing results are used to compile a detailed post engineering report for each cell construction; these reports are given to an independent Construction Quality Assurance (CQA) Engineer for approval. If the CQA engineer is satisfied Environment Agency approval is sought for the waste to be placed in the cell. The cell sizes are then checked using a water balance calculation. The principle of the water balance calculation is to compare the likely amount of rainfall/leachate generated against the capacity to store leachate within the cell, this is evaluated over a yearly cycle. The cell size will be determined by the storage and removal capacity against the expected waste inputs. If the cell is too small there will be a need for additional cells to be built too soon, if the cell is too big it will generate too much leachate, as a result of large uncapped areas which have not been filled quickly enough.

The purpose of the engineering cap is:

- to contain landfill gas in order to minimise uncontrolled emissions and facilitate the operation of the gas abstraction system,

- to minimise the ingress of water into the landfill and thus control leachate levels within the site,

- to provide a seal between the waste and any intended after-use.

For these reasons, and to comply with the Waste Management Licence or PPC permit, cells are capped as soon as practicable after waste has been brought up to final levels. The cap has a depth of at least 1 metre, and is constructed from compacted colliery shale with a Low Density Polyethylene (LDPE) layer placed on top. This is done to prevent water entering the waste mass and to ensure that the waste is fully contained.

In certain circumstances a temporary cap of 0.6 metre thickness is engineered to provide a short-term solution until it becomes practical to replace it with a full depth (permanent) cap. A temporary cap may be placed where:

- high levels of differential settlement are expected,

- filling to final levels cannot immediately be completed due to safety or practical reasons,

- waste batters are exposed for long periods due to the sequential filling strategy of the site.

The restoration cap, consists of a layer of loose clay or soils, not less than 0.75 metres thick, which is placed on top of the engineering cap to provide a growing medium and to protect the integrity of the engineering cap beneath. The depth of the cap will be increased where planting is to take place.

Deposit of Waste

Good compaction of the refuse is essential in order to:

- reduce fire hazards,

- reduce wind borne litter,

- discourage birds and vermin,

- produce a more stable surface for vehicle access and discharge.

Where possible, compaction of the refuse is achieved by using a "slow slope" method with a suitable compactor. This method requires the refuse to be deposited in layers over a long slope. Alternative methods may be used where necessary.

Daily cover is used to reduce potential nuisance such as wind blown litter, odour, fire risk, insects and rodents. Daily cover also helps prevent rainfall infiltration and improves traction.

Site Drainage for the Landfill/Waste Cells and Associated Areas

The landfill site itself will be engineered in such a way to minimise drainage problems. In order to remove surface water promptly and to reduce the opportunity for infiltration, each cell will be engineered with suitable gradients, ditches, cut-off drains and low-permeability bund walls. Surface water run-off from uncapped cells will either be re-absorbed back into the waste or collected

and discharged into the adjacent leachate holding tank, from where it is removed to a water treatment plant. Discharge into local watercourses will only take place if the quality of the water complies with that permitted by the discharge consent.

As each cell is completed, placement of the engineering cap will minimise rainfall infiltration. The subsequent placement of an agricultural cap and establishment of a grass sward will protect the engineering cap from cracking and increases evapotraspiration, further reducing infiltration. Surface water run-off from capped areas will be collected in perimeter ditches. This run-off will be uncontaminated and so routed into the existing surface watercourses around the site.

Water currently draining from the proposed extension area either discharges into the adjacent Upper Clydach River or in cases of disturbed ground water is discharged to the existing settlement lagoons.

Currently surface water run off from the existing landfill is directed into settlement lagoons situated at the eastern boundary of the site. These lagoons remove suspended solids from water that may have been picked up from the temporarily capped areas. All water that falls within the landfill working area is drained and treated as leachate.

Surface water run off from the areas to the west and north of the proposed extension area of the landfill will be intercepted by a perimeter drain which will divert the water round the north of the proposed landfill to drain by gravity to the Upper Clydach River. This drain will be utilising an existing ditch, which already flows in that direction. The land falls in elevation to the south, hence surface water will not enter the site from the south. The water quality and quantity of the drainage will be similar to the current surface water run off hence there will be no need to treat the water before it enters the river.

Clean surface water collected in the excavated cells will be pumped to the settlement lagoons. The lagoons of the current landfill will be maintained as part of the water management system for the proposed landfill. Additional lagoons will be constructed in the north of the site. Surface water runoff from capped areas of the landfill will have no contact with the waste and will drain through the settlement lagoons until vegetation is established on the cap.

The proposed surface water lagoons will be located to the north and west of the proposed extension area and will be provided before any further excavation occur on the site. In principle these lagoons will be aimed to encourage ecological interest with trees and shrubs being planted on their fringe however

their overall size and capacity is a matter for the Environment Agency. The engineering of the landfill site and leachate management scheme are designed to prevent any contamination of surface waters. The design of the landfill extension will stand off a minimum of 40 metres from the edge of the Upper Clydach River. No development of any nature will encroach within 7 metres of the river.

The Reception Area of the waste management facility is a paved area containing the site welfare facilities, weighbridge buildings, and car parking facilities. The haul road from the reception area to the current landfill area is constructed of aggregate, with a graded compacted top surface, which is regularly maintained. This type of road construction will be used to gain access to the proposed extension area. Drainage is considered as run off and is directed into the site's attenuation lagoon system via a system of roadside drains and culverts. The lagoon system settles out suspended solids within the run-off, to a quality which can then be discharged into the Upper Clydach river, in line with the current discharge consent.

The surface water drainage regime on Tip 871 composed of drainage ditches and settlement lagoons will remain in situ until the restoration of that site is complete or into a period of aftercare as required.

Settlement and Surcharging

In accordance with Waste Management Paper 26B, landfill sites are domed in order to achieve recommended slopes of between 1 in 5 and 1 in 25. This is necessary to promote rainfall run-off and to overcome the problems caused by differential settlement.

Due to the degradation of organic components in the waste, and the extraction of landfill gas and leachate, substantial loss of waste mass and volume occurs after deposition, thus causing settlement. There is therefore a need to apply a surcharge of waste to compensate for future settlement so that the post-settlement profile meets the desired landform. The rate of settlement reduces with time and the majority of settlement is expected to occur within five years of the engineering cap being put in place.

With the anticipated changes in waste types entering this site over the next few years, settlement rates will need to be kept under review and the pre-settlement contour scheme adjusted as appropriate. The use of a 25% settlement allowance represents the worst case scenario in terms of visual impact. A reduction in the assumed settlement rate could also produce a corresponding reduction in the total waste imports to the site and the life of operations.

Proposed Hours of Operation

The current opening hours for the site are Monday to Friday 07.00 – 17.00 hours and Saturday 07.00 hours – 13.00 hours inclusive. It is not planned to change these hours for the proposed extension. The opening times for the Civic Amenity site are Summer 09.00 hours – 19.00 hours and Winter 09.00 hours – 17.00 hours. The Civic Amenity Site opens on Bank Holidays due to public demand. The landfill opens on some Bank Holidays, for the receipt of municipal waste only, when requested by Council.

To allow for site preparation, daily covering of refuse and restoration works, operations may take place on site at any time between 07.00 and 19.00 hours on any day of the week, including Public Holidays. Essential maintenance of plant and machinery may be carried out at any time.

Site Security

Access to the site is restricted to authorised persons only by the use of a traffic management system, which restricts all visiting vehicles to either entering the reception area car park or driving directly onto the weighbridge.

The site is provided with a 2.5 metre security fence, the site gates being two metres in height. The security fence will be extended around the proposed landfill extension.

Wheel Cleaning Facilities

Methods to maintain the public highway in a clean condition will be adopted which include the surfacing of access roads, high pressure washing system and a road sweeper to clean both internal and public roads as necessary.

Leachate Management

Any landfill has the potential to produce leachate and landfill gas as the waste is broken down. Leachate is generated by rain water falling onto the waste and infiltration through the cap. The final landform of the proposed extension area has been designated to give good surface water run off and minimise rain water entry into the waste. Leachate typically contains high concentrations of dissolved organic and in organic substances and has the potential to contaminate ground water or surface water and be harmful to flora and fauna if not adequately treated and controlled. Sometimes it can produce an unpleasant odour.

An engineered lining system, as that proposed, is designed to prevent leachate migration although other leachate control mechanisms will be adopted as further safety measures.

Whilst the principle control is to prevent migration of leachate, leachate within the tip itself has to be controlled by hydraulic gradient. Appropriate control levels for any specific site are therefore determined by reference to ground water levels around the site. These controls would have to be maintained until the site has stabilised.

The current waste management licence for Pwllfawatkin requires that leachate levels within the landfill be kept to a maximum of 1 metre above base level, thus providing surface water protection. A risk assessment in line with Regulation 15 of the Waste Management Licensing Regulations 1994 has shown that a 1 metre leachate head will pose no risk to the ground water and adjacent water courses. Leachate levels on the existing landfill are maintained by pumping leachate from parts of the site with higher leachate levels to leachate holding tanks at the southern end of the site. Leachate is then transported by tanker to a suitably licensed facility.

The proposed leachate controls for the extension site is a matter for the Environment Agency through the PPC appraisals.

It will be necessary to manage the leachate to ensure that there is no unacceptable risk to groundwater. During the operational phase leachate will be maintained at a depth not exceeding 2 metres, whilst the level of the groundwater is maintained below the base of the liner. Once the site is filled to ground level the leachate head will be maintained at a level at least 2 metres below the surrounding groundwater level until active leachate management is no longer necessary. The time at which the leachate level is allowed to rise and the level to which it rises will be agreed with the Environment Agency. The maintenance of a hydraulic gradient into the landfill for the medium term will minimise the risk of leachate migration from the site.

Leachate extraction will occur at the lowest point of each landfill cell, primarily at the eastern boundary. The treatment and disposal of leachate will continue in the same manner at least for the time being with the existing holding tanks used to store leachate until its disposal off site. Additional tanks could be constructed if required within a compound on the eastern side of the site. These details would be subject to further approvals as required.

The monitoring of leachate and ground water will be a requirement of the PPC permit, however, it is anticipated that a minimum of 2 leachate monitoring wells would be constructed in each land fill cell. Boreholes will be also placed outside the landfilled waste and around the perimeter of the site to monitor ground water quality.

The extension of the landfill area will result in an increase in volume of leachate, however, the leachate collection system will be extended to the PPC permit requirements and control levels will be set within the same Regulations by the Environment Agency.

Landfill Gas Management

Landfill gas generation continues for many years after any landfill construction has been completed. Gas generation will vary in composition and rate according to the organic content of waste deposited. In Pwllfawatkin gas generation could last up to 30 years although the vast majority of gas production will be completed in the early years.

The major constituents of landfill gas are methane and carbon dioxide. Methane and carbon dioxide are both odourless. Landfill gas is considered to be non-toxic, however, it does have a characteristic and unpleasant odour. It is also a greenhouse gas and contributes to harmful effects of global warming. It is also combustible and can be a hazard if allowed to collect inside buildings etc.

At Pwllfawatkin the gas is managed through a gas extraction system. A new gas compound is to be established on the eastern side of the site and will consist of a fenced hard standing area containing fans, flares and other equipment required to maintain effective control of the gas field.

The gas control system at Pwllfawatkin has been designed in accordance with recognised guidance and advice including Waste Management Paper No. 27. The approach consists of engineered contaminant and positive abstraction, supported by an extensive monitoring regime. The general objective is to remove the gas by suction, creating a negative pressure within the site, thereby avoiding gas emissions to the atmosphere or ground mitigation off site. The gas will be passed via a network of gas wells and pipelines to an environmental gas compound where it will be flared using an insulated ground flare. Details of the proposed compound would need to be submitted to the Planning Authority for approval.

The spacing of gas wells and configuration is a matter that will be dealt with by the Environment Agency under the PPC permit, and various safety measures

and standby capacity is designed in the system. The principles of gas management and environmental controls is a situation that is kept under constant review, and modifications to the system would need to be approved by the Environment Agency under their own regulations.

The gas abstraction and management system needs to be maintained and controlled efficiently to prevent odour problems arising. Landfill cell design, capping and gas infrastructure is proposed to be designed to limit the potential emission of odours.

As wells are drilled in the waste there is some risk of the gas escaping. In order to minimise the risk, the following procedures are followed:

- installation of well casing, aggregate and bentonite sealing immediately following drilling;

- capping individual wells immediately after installation, to prevent the release of gas before they can be connected to the collection system or temporary flare;

- placing a temporary seal over wells where drilling has been started but not completed during the day;

- taking account of weather conditions in implementing operations.

An essential control mechanism at the site is to cover waste areas as soon as possible. This reduces odour production and potential leachate quantities within the waste, therefore sections of the site will be surcharged with temporary seals. This allows gas within the cell to be extracted prior to completion of proposed restoration contours.

The site is managed under a formal Environmental Management System and on-site monitoring include gas monitoring probes and boreholes, and monitoring reports produced and submitted to the Environment Agency. Off-site monitoring, including concerns about odours, would be carried out with a view to identifying the cause and rectifying the problem.

The existing gas management system will be adopted for the extension site, however, constant review and further mitigation measures would be adopted as necessary. The proposed extension will increase the total volume of gas produced over the life of the facility, however, changes in the types of waste with a lower proportion of biodegradable content should ensure that lower rates of gas production produced at the extension site.

As with leachate, the generation of landfill gas is regulated by the Environment Agency and operations are intended to continue and introduce the best available technology thereby providing optimum control on the site.

Proposed Restoration and Aftercare

Modern landfill structures have site engineering and management requirements that have an influence on restoration proposals. Surcharging of waste due to settlement, the methods of phasing of operation, and efficient gas management and leachate collection systems provide challenges to normal restoration and aftercare principles. In respect of gas collection, pipe work has to be designed and placed on the surface initially to ensure appropriate falls are maintained and effective condensate drainage. Ultimately the pipe work would be buried in the capping material.

In the longer term the lay out of the landscape also has to allow access to well heads and pipe lines to facilitate the maintenance of gas and leachate collection systems. As indicated in the description above, the proposed extension site will have a final landform composed of a linear domed structure with a maximum height of around 204 metres AOD, ultimately settling to around 192 metres AOD. It is proposed to restore the extension area to an amenity after use combining a mixture of woodland, wildflower meadow and hedgerows. The current landfill and tip 871 are also proposed similar amenity after use. It is intended to provide a conservation value to the aftercare of the site albeit some grazing management and mowing techniques would need to be introduced to the aftercare management. Surface water settlement lagoons on tip 871 will be modified and retained to provide aquatic wildlife.

Restoration materials may be imported from elsewhere although largely most of the engineering cap and final growing mediums will be conserved and utilised from the existing site. The predominant material will be weathered boulder clay whilst any top soils and subsoils encountered would be preserved and used for tree and hedgeland areas. Direct transfer of soils will be carried out as much as site conditions allow, spreading a restoration cap to a minimum depth of 750 mm, increasing to 1.5 metres for areas of hedging or trees. Cultivation techniques will be adopted for fertilising will be carried out as and when necessary but subject to specific requirements given the objectives of ecological diversity within the proposed species rich grassland.

A species rich grassland would prevail within the field enclosures and substantial areas of broadleaf woodland and hedgerows are proposed to improve the integration of the site into the surrounding landscape, to create wildlife

habitats and to encourage colonisation of the woodland blocks from peripheral habitats by creating wildlife corridors along hedgerows. Care would have to be undertaken to avoid planting along gas and leachate collection systems. As indicated above, the landfill extension would be constructed and filled in a phased manner and capping being undertaken as soon as practicable. Progressive filling and restoration would serve the purposes of limiting the area of exposed waste and therefore leachate generation and uncontrolled gas emissions, reducing visual impact and enabling rapid vegetation establishment and soil stabilisation. Given the need to install, maintain and repair services beneath the cap, tree and hedge planting would be delayed for approximately five years following the placement of capping on each phase. This is in accordance with government guidance on landfill design.

It is proposed that the programme of aftercare will commence immediately following the restoration of each phase and will operate for at least ten years. Where trees and shrubs are to be planted they would be subject to a further five year aftercare programme from the date of planting. The management and replacement of trees, hedges and shrubs, management and reseeding of grassland areas and the maintenance of drainage ditches and lagoons would be carried out during the aftercare period.

Principles of such maintenance and management have been set out within the application and a review of remedial operations would be required depending on differential settlement and leachate and landfill gas management requirements. Annual plans and record keeping would be undertaken, and buildings and other structures would be removed when they are no longer required for the purposes permitted. These would include leachate and landfill gas equipment.

Policy Considerations and Context

National policy and guidance has developed in recent years primarily from key drivers such as global commitments and European directives. From these domestic legislation and guidance has been developed to address the requirements.

In Wales the National Waste Strategy for Wales "Wise About Waste" – (NWSW) sets out how Wales can reduce the amount of waste it produces and deal with waste in a more sustainable manner. As in the rest of the United Kingdom, the cumulative result of a number of directives regarding waste will mean that waste in Wales will have to be planned for and managed in accordance with such directives.

In accordance with the principle of sustainability the main objectives of the Government's original strategy for sustainable waste management was first published in 1995 in a document titled "Making Waste Work". The principles in that document has been transposed and elaborated in NWSW (2002).

Some of the key requirements of the main statutory drivers are as follows.

The Framework Directive on Waste

The Framework Directive sets out a number of objectives which are important considerations in a waste planning proposal. Under the Waste Management Licensing Regulations 1994 there is a duty on local authorities to discharge their functions so far as they relate to the recovery or disposal of waste with these objectives. In deciding this application therefore the Authority should have regard to the objectives as ends to which to aim.

Member states are required to take measures in particular to

Encourage the prevention or reduction of waste production and its harmfulness and the recovery of waste.

They are also required to ensure that

a) waste is recovered or disposed of without endangering human health and without using processes which could harm the environment and, in particular without risk to water, air soil and plants and animals without causing a nuisance through noise or odours and without adversely affecting the countryside or places of special interest including areas of acknowledged importance in relation to national and cultural heritage

b) the abandonment or uncontrolled disposal of waste is prohibited and,

c) establish an integrated and adequate network of disposal installations.

One of the objectives is also that the best disposal or treatment option is used as close as possible to the origin of the generated waste.

European Union member states are required to take all necessary steps to prevent or minimise waste generation, to encourage re-use of materials, and to ensure safe disposal of wastes. The Directive also established the principles of:

- Proximity
- Self Sufficiency

- The Waste Hierarchy

These are dealt with in detail later in the report.

The Landfill Directive requires among other things

a substantial reduction in the amount of biodegradable municipal waste (BMW) sent to landfill:

by 2010 to reduce BMW landfilled to 75% of that produced in 1995;

by 2013 to reduce BMW landfilled to 50% of that produced in1995;

by 2020 to reduce BMW landfilled to 35% of that produced in 1995.

a ban on the landfilling of corrosive, oxidising, highly flammable, flammable or explosive waste; liquid waste; infectious hospital and other clinical wastes arising from medical or veterinary establishments; and tyres;

the cessation of the co-disposal of hazardous and non-hazardous waste after 2004'

the classification of landfill sites into inert, hazardous and non-hazardous

the treatment of all wastes prior to landfill,

landfill location requirements.

Regulation 5 of the Landfill (England and Wales) Regulations 2002 requires a planning permission under the Town and Country Planning Act 1990 may be granted for landfill only if the location requirements of Paragraph 1(1) of Schedule 2 of those regulations have been taken into consideration. Paragraph 1(1) Schedule 2 set out the following criteria for consideration of the location of landfills.

a) the distances from the boundary of the site to residential and recreational areas, waterways, water bodies and other agricultural or urban sites;

b) the existence of groundwater, coastal water or nature protection zones in the area;

c) the geological or hydrogeological conditions in the area;

d) the risk of flooding, subsidence, landslides or avalanches on the site; and

e) the protection of the natural or cultural heritage in the area.

The NWSW links strongly and is consistent with the Assembly's overarching Sustainable Development Scheme. In developing the NWSW the Assembly Government also subscribes to the following key principles.

The main principles with respect to decisions on waste management options are.

a) The Waste Hierarchy prioritises in general terms waste management techniques and option in the order of their relative environmental impact.

   The following are ranked from top to bottom for different waste management options.

   Reduction (of waste and the use of natural resources).

   Re-use (of materials of products).

   Recovery (including recycling/composting and energy recovery).

   Disposal (including landfill).

b) The Proximity Principle which requires waste to be recovered or disposed of as close as possible to where it has been produced.

c) Self sufficiency – In line with the proximity principle the waste planning process should ensure that there is a sufficient capacity in terms of waste management facilities to manage the wastes produced in any given area.

NWSW clearly focuses on the targets and principles set out in agreements and directives and form the framework for developing more sustainable waste management in Wales. However, it also acknowledges that the transition to more sustainable methods will be dependent on numerous factors. Some of these are outside the scope of the planning process.

With respect to landfill the secondary Wales specific targets include the following.

- by 2005, to reduce the amount of industrial and commercial waste sent to landfill to less than 85% of that landfilled in 1998 and

- by 2010, to reduce the amount of industrial and commercial waste going to landfill to less than 80% of that landfilled in 1998.

It is recognised that landfill is at the bottom of the waste hierarchy and waste reduction, reuse and recovery must take precedent before any waste is disposed of into landfill sites.

Nevertheless Paragraph 3.20 of NWSW states: -

"There is a continued need to make provision for adequate landfill capacity in Wales, ensuring that strict controls are in place to prevent harm to human health or damage to the environment. A switch from landfill will not happen immediately and it is likely that for the foreseeable future there will be some residual inert or stabilised wastes for which landfill is the Best Practical Environmental Option (BPEO)."

Paragraph 12.5.1 of Planning Policy Wales specifically states that "Local planning authorities are obliged by the EC Framework Directive for Waste to make provision for establishing an integrated and adequate network of waste disposal installations. They are also required, in conjunction with the Environment Agency which issues waste management licences and pollution control permits to ensure that waste is recovered or disposed of without harming the environment, without endangering human health, without risk to water, air, soil, plants or animals, without causing a nuisance through noise or odours, and without adversely affecting the countryside or places of special interest, including areas of acknowledged importance in relation to the natural and cultural heritage."

Technical Advice Note 21 (TAN 21) – (Wales) – Waste, seeks by its policy and guidance to facilitate a comprehensive integrated and sustainable land-use planning framework for waste management in Wales. Waste reduction, re-use and recycling and the reduction in the use of less sustainable forms of waste management, clearly are the best and most desirable objectives for waste management. However Paragraph 4.11 goes on to say.

"It is acknowledged that landfill will continue to be a disposal option for some time until alternative facilities are established. Even with waste minimisation and increased levels of reuse and recovery, there will still be a need for some landfill of waste, for example, incineration residues and other residual waste where landfill is the most practicable option. Landfill capacity must therefore be available to take waste arisings that still have to be disposed of in this way, even though in reduced quantity."

A Regional Waste Plan for South West Wales was adopted by the Authority in January 2004 and by the Region in February 2004, which has been produced with the aim of making a substantial contribution towards meeting national waste strategy aspiration.

Following a BPEO analysis and Sustainability Assessment, the Regional Waste Plan (RWP) aims to achieve the 2020 statutory and non statutory landfill diversion targets by 2013 for all principle waste streams, including municipal solid waste. (Option 6 of the Options that were assessed). This requires the following:-

- Primary recycling and composting implications: Maximise recycling and composting of each principle waste stream through intensive source segregation wherever possible.
- Primary residual waste treatment implications: Treat residual waste through mechanical biological treatment, energy from waste, or if necessary landfill.
- Commercial and industrial waste implication: Reduce landfilling of all commercial and industrial wastes to less than 20% of total projected waste arisings by 2013 (estimated at ~2.06 million tonnes).
- Construction and demolition waste implications: Eliminate landfilling of this forecasted waste stream by the year 2013 (estimated at ~1.15 million tonnes).
- Municipal solid waste implication: Reduce landfilling levels from 92% in the year 2001 to less than 31% by the year 2013. The plan assumes a diversion away from landfill could be achieved principally through primary source segregation of recyclables (at ~43%) and composting (at ~26%).
- Agricultural waste implication: Eliminate the amount of the potentially controlled fraction of agricultural waste landfilled by the year 2013 (estimated at ~0.002 million tonnes).

Option 6 is therefore the foundation for developing the land use framework for the Region. However, in order to minimise any blight that may otherwise result from over-allocation of land to meet the aspirational targets, it is expected that Unitary Development Plan allocation will be phased and to include, as a minimum, the statutory targets for 2013 (Option 1 of the RWP Assessment).

The implications of the Plan in terms of the need for landfill capacity is assessed later in this report.

Technical Advise Note 21 (TAN 21) Wales (Waste) states that in considering any proposal for a waste management facility the planning authority has to have regard of the proximity and self sufficiency principles, the Waste hierarchy and

determine the Best Practicable Environmental Option when considering the planning merits of a proposal.

Paragraph 6.9 states

Local planning authorities should take account of the planning considerations identified in Annex C in the determination for waste management facilities. Where a proposal is environmentally unacceptable or would cause adverse impacts on amenity and the problems cannot be mitigated to an acceptable standard by conditions, planning permission should be refused.

Policy EQ13 of the West Glamorgan Structure Plan (Review No. 2) indicates that where specific waste treatment and disposal sites are not identified in local plans such use of land would only be permitted where such operations would not have adverse effects on amenity, nature conservation, and heritage, surface or ground water and amenity of the surrounding area.

In respect of the Northern Lliw Valley Local Plan:

Policy EQ14 has a presumption against any further private tipping sites within the Northern Lliw Valley area unless they are proposed at locations where suitable access, landscaping, environmental and afteruse proposals may be agreed.

Explanation to this policy states:

Local authorities have a responsibility for the preparation of plans that will ensure adequate arrangements existing for the disposal of controlled waste within their area. Although a single site has been used in Northern Lliw Valley in the past, these arrangements will change as a result of compliance with environmental legislation.

Private tipping sites can only be justified if normal highway and planning considerations are adequately met, particularly in relation to access, levels of noise, dust, and fumes, and visual impact on the environment. It is also considered that a beneficial after-use would be a necessary prerequisite of any development proposal submitted to the Borough Council.

With regards to the Draft Unitary Development Plan, Policy 25 indicates that the creation of a network of waste treatment and disposal facilities to meet the needs of the County Borough will be promoted through the plan.

Policy W1 required each proposal for the collection, treatment or disposal of waste to be considered in terms of whether they would represent a sustainable approved to waste management and that they would not create any unacceptable impacts.

Assessment

Planning Policy Wales Technical Advice Note 12, Waste, identifies the specific planning considerations to be taken into account when assessing planning applications for waste management facilities. An assessment of these considerations is as follows.

Transport and Access

A traffic impact assessment has been carried out to evaluate the suitability of the access and highway network for the proposed development. Historically traffic records indicate that some 76% of the vehicles entering the site travel from the south i.e. through Rhydyfro and 24% from the north i.e. through Cwmgors and Gwaun Cae Gurwen. There have been significant fluctuations in the number of vehicles entering the site over the last few years and it is recognised that on occasions over 140 loads per day have been entering the site. The size of such vehicles are also variable and can have a carrying capacity of some 40 tonnes or more.

The access points onto the minor road from the site are considered to be satisfactory by the Head of Public and Transport Services (Highways) subject to improvements to signage direction and road markings. The minor road leading from the access point towards the junction of the A474 has served the facility for some 25 years although the scale and nature of h.g.v. movements have changed dramatically in that time. The minor road is narrower than the standard two lane width of 7.3 metres in places and there are two bends that h.g.v.'s have to negotiate. An assessment has been carried out to establish improvements that can be made to this stretch of road which include widening, traffic light control and ancillary works. It is considered that subject to these this road can accommodate the development without causing highway danger.

The surrounding highway network leading to the site would follow routes through Rhydfro/Pontardawe to the south and Cwmgors and Gwaun Cae Gurwen to the north. These routes impinge and pass through residential areas. In terms of highway capacity, even allowing for other potential developments in the area, it is considered by the Head of Public and Transport Services that the proposed level of importation into the site is acceptable in highway terms. Traffic Regulation Orders in Swansea Road, Pontardawe will also contribute to

the throughflow of heavy good vehicles to the south. A lesser proportion of vehicles, something in the region of 30% of the h.g.v.'s movements, are anticipated to come to the site from the north. This route is also considered acceptable given that the A474 is one of the main strategic arteries of the highway network. It is considered by the Head of Public and Transport Services that h.g.v. movements are not contributing directly to the deterioration of parts of the road carriageway associated with a landslip at Gelligron Hill in Rhydyfro. Temporary traffic lights are in operation at the present time until alternative road construction and funding is available. In the interim it is considered that the road can be protected from failure until a permanent solution is found. It is therefore considered in highway terms that subject to a maximum level of importation per day of 125 h.g.v.'s, the proposal is acceptable in highway terms.

It is important to consider that the maximum number of h.g.v.'s entering the site per day of 125 (Monday to Fridays) is required in events of exceptional circumstances within the waste importation stream. It is highly likely given the annual levels of importation anticipated that the number of h.g.v. movements into the site on a "normal" day would be significantly less than this. This factor is a crucial consideration in respect to the potential impacts on amenity. The proposal seeks to import some 180,000 tonnes per year into the site. This would equate to some 45 h.g.v.'s per day on average on an assumed average carrying capacity of 15 tonnes. By its very nature, h.g.v. movements will fluctuate at such a waste management facility although in forthcoming years a more integrated waste management framework would provide a more stable environment for importation management. There is an average of some 7 tankers visiting and leaving the site each working day removing leachate and these are likely to prevail for the duration of the works.

It is contended by representations received that as much as 247,000 tonnes of waste was imported into the site in the year 2002. This is not contested and importations from areas predominantly other than the Neath Port Talbot occur. There is little doubt that any level of h.g.v. movements will have an impact on the amenity and environment of residential areas along the highway network to the facility. This would be in terms of noise, vibration, and some air pollution. There is also a potential for odour on occasions.

Given that the A474 is a main arterial road it is considered that adequate controls can be adopted to alleviate the impact of the quality of life of the residents along the routes to a level that would not warrant a refusal.

Consideration has been given to rail transportation however it is considered that such a facility could not be warranted in this case given the scale and dispersion of waste origins together with the infrastructure costs and physical difficulties.

Dust and other emissions

The potential for dust from the proposed operations at the site is primarily from the movement of soils, sub soils and general earth moving activities, the handling of waste and the movements of vehicles both on and off the site.

Monitoring of dust at 6 locations around the site was undertaken. The methodology adopted using glass slides were analysed in accordance with NAMAS certified methods using a Rendel dust meter to determine quantifiable levels over a 4 week rate. The results are expressed in soiling units using a percentage reduction in surface reflectance using a standard gloss meter. (0 = no soiling, 100 = complete dust coverage).

Previous studies in other areas of this country e.g. 120 sites in London assessing traffic, have shown that a 4 week rate above 20% will generally be regarded as unacceptable by the public. Social surveys indicate that this acceptability rate drops to 15% if dust is comprised of very dark material e.g. coal, with rates below 10% being regarded as acceptable by most members of the public.

Whilst there are some discrepancies within the calculations of the four week soiling rates calculated within the results, one site, namely The Star Inn now a residential property, on the main A474, is the only site that exceeds this particular soiling rate by an appreciable amount. Dust generation is not identified as a significant and continuing problem at the existing site, although on occasions extreme conditions have provided circumstances where dust can be generated if insufficient attention is not taken in respect to mitigation methods. The anomaly within the monitoring results at The Star Inn could be explained by the location of the monitoring site immediately adjacent to the A474 and to certain site activities at that location including earth storage and the existence of an unsurfaced track at the site.

Nevertheless, it cannot be dismissed entirely that the operations at the existing site has not been a contributory factor to the level of dust measured. Even so, it is extremely unlikely that such soiling rates would not have been experienced on other monitoring locations if dust generation at the site had been so instrumental in providing such a high figure. It is therefore considered that other mitigating factors contributed to the reading at The Star Inn.

The proposals include recognised methods of dust suppression which also would be controlled within the PPC for the site. Nevertheless, the potential for dust is a material planning consideration in the determination of the application, and consequently the planning authority has to be satisfied that an appropriate level of control can be exercised to limit the extent of dust being generated at the site to an acceptable level. It is recognised that such controls cannot prohibit dust generation completely, however, given the general location and distance of operations from residential properties, it is considered that any dust impact would be relatively limited and the affect on amenity would not be significant.

In respect of particulates such as PM10 and PM2.5, regular monitoring at opencast coal sites, including the nearby East Pit at Tairgwaith has shown that there is not a problem with locally produced particulates. It is considered that operations at this site would not significantly increase these emissions.

Birds and Vermin

Waste management sites, especially landfills, attract birds and vermin. Control of vermin, which could present a health hazard, is a matter for the waste management licence or PPC. Whilst vermin are attracted to such facilities, there are appropriate mechanisms available and being carried out at the site to reduce this problem. An appropriate qualified specialist pest control contractor is employed at the site to undertake preventative measures for the control of pests and vermin. In extreme cases pesticides may be utilised in an environmentally acceptable manner.

The implementation of good landfill practice by the covering of waste minimises the risk of infestation by rodents and equally flies.

It is recognised that the proposed waste management facility may be a source of attraction of vermin. However there is no specific evidence to suggest that levels of such populations are excessive in the locality.

Birds, particularly seagulls, are attracted to landfill sites where they have the potential to affect the amenities of an area by virtue of noise and visual impact. Provisions on the existing site will be extended to any future operations by seeking to control such flocks from the site by the use of a full time falconer to control gulls and other nuisance birds. This method has been seen to be reasonably successful in the last few years. Other good practice in waste compaction and progressive covering will also reduce the attractiveness of the site to such birds.

It is considered that these affects on the locality are not excessive and can be controlled adequately by appropriate mechanisms.

Odour

Waste management facilities can produce unpleasant odours that can result in recurring nuisance to local residents and neighbours. Landfilling or landraising facilities have a number of sources that can generate odours unless proper controls are exercised. These include the waste material itself, gas emissions, and leachate tank emissions.

It is necessary to investigate the potential odour generation and likely dispersion patterns, taking into account topography and weather conditions. It is also necessary for any application to demonstrate how working plans and operating procedures can minimise the potential for offensive odours, and demonstrate how effective odour control can be carried out including contingency plans for odour incidents.

An assessment has been carried out on the following

- to summarise the extent to which odour emissions cause annoyance from the current operation of the landfill.

  and

- to assess the extent to which operations in the new cells on the extension site will cause exposure to odours from the site.

The prediction of the likelihood of odour annoyance from a site assessment is not a precise science however some techniques have been developed.

Fluctuations in odour emissions is a characteristic of most landfill sites and for this reason a range of emissions have been considered in an attempt to account for these variations. The number of odour complaints recorded by the operating company from 1997 to 2001 amounted to 9. Six odour complaints have been received by the Authority's Environmental Health Section since 2001, four of these were referred to the Environment Agency, 1 was unsubstantiated and 1 complaint in February this year was substantiated. The Environment Agency has recorded 14 complaints on odour and dust between January and July of this year. Of these, four were substantiated as odour incidents which required addressing. It is therefore recognised that odour emissions have been the source of complaint and concern on a number of occasions.

An emission and dispersion modelling assessment has been carried out based on the experiences of other landfill sites. In order for a suitable judgement to be carried out the following principles are set out below.

Emissions at Pwllfawatkin are expected to change over time, particularly given the anticipated reduction of the biodegradable content within the waste. The methodology adopted for assessing the impact has been based on odour concentration units, intensity and offensiveness. These are based on statistical analysis and the perception of a group of individuals to the presence of an offensive smell.

The methods carried out in terms of the type of odour emissions and the prediction of its impact on the surrounding amenities is complex. However, in the broadest sense, the odour emission types evident within the site are landfill gas from capped areas and part of the active cell and secondly odours from refuse tipping. Whilst leachate can produce an odour, the provision of fixed tanks should eliminate the potential for this source.

A series of maps and dispersion details where the statistical probability of the frequency with which odour concentrations may exceed define thresholds of concentration have been produced. The threshold of concentration is classed for a pre-determined frequency of 2% of the hours in the year. This is referred to as the 98 – percentile. This represents odour concentrations at a specified location and given concentration for more than 175 hours in the year. Within this methodology odour concentrations of greater than 5 oue/cubic metre at the 98 – percentile frequency may be considered as offensive. The odour concentration units are specified as oue's (European Odour Unit). 1 oue represents the concentration where 50% of a group of people "panellists" which can detect the presence of an odiferous reference gas.

Within the dispersion modelling exercise carried out it is suggested that properties would not be exposed to odour concentrations greater than 1 oue/cubic metre 98 percentile, however, concentrations as high as 5 oue/cubic metre 98 percentile would occur within the site and the various cell stages.

In consequence it is considered that whilst this assessment indicates no substantial impact on residential areas from the proposed operations, there is a likelihood that odours will be experienced off site on a small number of occasions. This view is based purely on existing experience.

It is also important to balance against the presence of odour, that such emissions, whilst being detectable on a small number of occasions during any working year, it is considered they do not constitute any recognised effect on

long term public health. Odour is a specific issue that the Environment Agency would need to control under the PPC permit, however, such a potential affect on the amenities of the area is a significant consideration in planning terms.

The proposal includes contingency plans for any abnormal situation with regard to odours and an odour monitoring action plan has been developed to thoroughly investigate verified odour complaints. The action plan would act as a guidance for locating and assessing the source of odour and provides options for the most suitable form of remediation. Existing mitigation measures will continue to be adopted and the implementation of good practice should limit the number of incidents to the absolute minimum. Odours have occurred in the past with the transportation of material, and whilst the effect is short lived it is considered that should consent be granted, a condition reducing the importation of highly malodorous waste be imposed which would alleviate this problem and assist in controlling odours on site.

Noise

Landfill operations of the type proposed within the application involves the utilisation of plant and machinery to create earth structures the tipping of waste and other ancillary arrangements. These operations can generate noise at significant levels. Very few complaints have been received by the Planning Authority in respect of noise from the existing site and it appears that no complaints have been received by the Authority since at least 2001.

A noise assessment has been carried out within the Environmental Impact Assessment to establish the potential affect of the proposed operations on the nearest noise sensitive properties in the locality. Background levels were established and predictions of noise levels have been determined in accordance with BS5228: 1997 'Noise, Vibration and Control on Construction and Open Sites'. An assessment was made of whether there is a likelihood that noise from the proposed extension would be a cause for complaint. Mitigation measures and a proposed noise monitoring programme are also considered.

Guidance for waste operations of this nature is found in TAN 11 (noise) which indicates the need for specific noise controls on landfill and waste disposal sites, without specifying acceptable levels. In relation to acceptable levels, it is considered therefore that given the nature of landfill operations MPG11 The Control of Noise at Surface Mineral Workings (1993), which gives specific guidance on acceptable noise levels, is appropriate. However, an assessment has also been made in accordance with BS4142 which is a method of rating industrial noise affecting mixed residential and industrial areas. Noise from the proposed operations has been assessed against both of these guidance

documents. MPG 11 recommends that noise levels during the working day be limited to 55 dB Laeq 1 hour (free field) and to 42 dB Laeq 1 hour (free field) outside those hours but also advises that levels up to 70 dBd Laeq 1 hour (free field) are considered acceptable for periods of a few weeks, for example to allow screening embankments to be constructed, which would have long term benefits. For comparison purposes, 55 dB Laeq 1 hour (free field) is described as roughly equivalent to the noise made by a person talking normally and is generally agreed to be a tolerable noise level. The normal working day is also considered to be the hours of 07.00 and 19.00 hours. Baseline readings and an assessment of the maximum operational noise from the site as a worst case scenario was carried out for 9 of the nearest noise sensitive properties surrounding the site which include properties to the north, including Nant Melyn Farm and the red brick bungalow at the extreme end of the settlement of Cwmgors and the Star Inn. Properties to the east and south have also been assessed and the nearest residential property to the west namely Nant y Gafaelau Farm.

In determining the potential noise impact in accordance with BS4142, it should be noted that BS4142 states: "The greater this difference the greater the likelihood of complaints. A difference of around +5 dB is of marginal significance. If the rating level is more than 10dB below the measured background noise level then this is a positive indication that complaints are unlikely."

The results of the assessment indicates in respect of BS4142 that exceedences of 12.3 dB would be experienced at Nant Melyn Farm during the operation of cell 1. However, the maximum level of noise would be 55.3 dB Laeq 2 hour (free field), which is only nominally above the recognised standard of day time working with MPG11. Given the exceedence of 10 dBA above the background level, it could be argued that complaints are likely. However, in respect of Nant Melyn Farm, and the newly constructed Abercorgi Farm, which lie 250 and 350 metres away respectively from the operational boundary of the site, it is considered that the temporary exceedence of the background level would not have a demonstrably significant effect on the amenities of the area given that operations will retreat from the north in a relatively short period of time, approximately 12-18 months and that temporary exceedence of 55 dBA is normally allowed for short periods under the guidance of MPG 11. Levels will drop well below 55 dBA as progress is made in a north to south direction.

The results of the measures and predictions and assessments in accordance with BS4142, indicate that the majority of noise sensitive properties that surround the proposed landfill extension will not be subjected to noise levels that would give rise to complaints. However, in respect to operations on cell 1, additional

mitigation measures and procedures are proposed in such a way that noise is minimised due to attenuation with distance or barrier effects. The structuring of activities to avoid noisiest tasks at more sensitive times are also an option.

In respect of Nant Melyn Farm and Abercorgi Farm, it would be possible to provide further attenuation by placing a two metre high acoustic fence on top of the elevated side seal should monitoring dictate the need for such mitigation. This coupled with operational measures, as indicated above, should reduce noise levels below the MPG 11 day time limit.

In respect to the red brick bungalow residential property, the predicted noise level is 8 dB above existing background level during the operation of cell 1. This would only occur during the operation of cell 1 and would reduce with time again as operations moved in a southerly direction. The maximum level that would be experienced at this property would be 47.5 which again is well within the recommended nominal day time limit recommended in MPG 11. However, in this case, there is a facility to provide an additional northern perimeter bund for a temporary period to facilitate a mitigation of noise levels towards this direction. This has been proposed as a specific construction design.

In respect of Nant Y Gafaelau Farm, an exceedence above background level of 7.4 dB would be experienced when cell 4 is in maximum operation. The nominal day time level would be 52.4 dB LAeq 1 hour (free field), again within MPG 11 limits.

Temporary operations such as the construction of water treatment facilities, drainage works etc. would introduce levels of noise that would exceed 55dB Laeq 1 hr. at noise sensitive properties. However MPG11 also states that temporary operations may be acceptable for a specified short period of time associated with preparatory works. Appropriate controls could be adopted to allow levels of noise to exceed 55 dbA (Leq) 1 hr for a short period of time and within restricted hours in accordance with the advice of MPG11.

Noise levels attributable to operations on tip 871 and the existing landfill will remain on a similar level and no specific additional controls are considered necessary for these activities.

The noise impacts of the initial part of the development, particularly in cell 1, and associated preparation works, will elevate noise levels within the general locality by a relatively significant amount. However, this temporary exceedence during day time has to be balanced against the overall operations proposed and the predicted reduction in noise levels during the remaining 90%

or so of the operating life of the site. Given the additional mitigation measures and the imposition of conditions during the first phase of operations, it is considered that on balance noise levels generated by the site operations are unlikely to cause significant harm to the living conditions of nearby residents to such an extent that a specific objection on noise grounds could be sustained.

Litter

Litter can develop into a serious problem on landfills. The Authority has received some complaints in the recent past when litter had allegedly escaped from the confines of the site and affected the amenity of the area. In general terms litter has not been identified as a major problem. During temporary and extreme climatic conditions some litter has escaped from the site, however, these occurrences have been very infrequent and rectified swiftly by the operating company. The current proposal can be accommodated satisfactorily within the mitigation measures set out at the site. Litter can be a source of problems if the sheeting of vehicles travelling to the site is not adequate. Again instances are relatively infrequent and are not considered to be a significant problem in this case and is also a matter that can be regulated to an adequate level.

Protection of Surface water and Groundwater

The proposals include the provision of cut off ditches and settlement lagoons to prevent clean water from entering the working areas or to treat contaminated water and remove suspended solids before being discharged into watercourses. Existing water treatment facilities exist to prevent contamination of adjacent watercourses. Such drainage arrangements are considered satisfactory and the Environment Agency carry out their own monitoring of discharges from the site. Similarly, water treatments exist on tip 871 which effectively performs their function of settling contaminated surface waters prior to discharge to watercourses.

In respect to the landfill extension area, additional drainage and settlement lagoons are to be provided to the north and east of the landfilling operations. The exact design and size of these structures will need to be approved should consent be granted. However, the proposed attenuation areas have been assessed in terms of 20 and 50 year rainfall events and anticipated volume of surface run off and it is considered that the areas identified are likely to be of sufficient capacity to protect the surrounding environment from such pollution.

In terms of leachate, which is polluted water resulting from the degradation process of waste combined with water infiltration, the proposed controls and

collection outlined above will also be the subject of specific controls under the PPC permit. Nevertheless the planning authority has a duty consider this element prior to the grant of any planning permission.

The proposed leachate management strategy includes the proposed additional leachate storage tank facility or similar treatment plant. There is a definite requirement for such a facility and its location on the south eastern fringe of the extension site is considered satisfactory.

The Environment Agency are satisfied with the provisional details for surface water management and it is considered that sufficient protection will be afforded to the surrounding waters and Upper Clydach River from surface water controls associated with the site.

Groundwater impacts have been assessed under a hydrogeological risk assessment and site conceptual model. The proposed landfill site would operate on the basis of hydraulic containment in medium to long term where after initial de-watering, groundwater levels would be allowed to rise and the site would be operated on the basis of a hydraulic gradient into the landfill containment system. The assessment concludes that there will be no significant contribution to baseflow in the Upper Clydach River from the groundwater in the vicinity of the site.

In the groundwater risk assessment it is concluded that there will be no migration of listed substances from leachate to groundwater during the period of groundwater control of approximately 10 years. Once groundwater control ceases, contaminants in the leachate may migrate through the liner by the process of diffusion. Calculations to demonstrate the migration of contaminants through the liner due to diffusion show that the contaminants would not travel more than approximately 0.20m into the liner before the concentrations become insignificant, hence there is no significant risk to the identified receptors.

The report concludes that there will be no discernible discharge of List I substances to groundwater and no pollution by List II substances of groundwater or surface water. It is also put forward that the landfill design meets the requirements of the landfill (England and Wales) Regulations 2002 and of the Groundwater Directive (80/68/EEC).

The Environment Agency concur with the results of the assessment and accept that sufficient information has been provided at this stage to give an understanding of the hydrogeological setting and site conceptual model. The Environment Agency also confirm that they agree that the groundwater is not likely to make a significant contribution to adjoining surface water systems.

The assessment also concludes that the site is not within a Source Protection Zone 1 and therefor no specific assessment is required in this regard.

There is no risk from flooding at the site and no objection has been made to the potential effect of the extension site on this issue.

Specific consideration has been undertaken in respect to a new water well supply some 300 metres north of the site at Abercorgi Farm. The Environment Agency consider, on the basis of the quantified hydrogeological risk assessment undertaken for the site, that there is no significant risk to controlled waters including the Abercorgi Farm borehole from existing and proposed landfilling operations.

Conditions can be adopted to control drainage and disposal of surface water and to prevent pollution of groundwater by leachate to an adequate extent that reduces any risk to the surrounding environment to an acceptable possible level.

Land Stability

Any new landform for landfilling or landraising needs to be designed to be an inherently stable structure in the interest of safety and the environment. Stability analyses, in respect of basal heave, side slope subgrades, side slope liner, waste mass and capping system have been undertaken. The Environment Agency have confirmed that the design of the landraised structure and its factors of safety do not appear to be unreasonable. Stability calculations have also been calculated for each of the lining system elements. The aspect of basal heave and mining stability assessments have also been considered with conclusions that failures of the lining systems are not expected to occur via these mechanisms.

The assessment of subsidence due to former mining activities at the site identified some residual subsidence of 9mm which is limited at the southern part of the site. The potential risk to the liner system from subsidence is considered to be low.

It appears reasonable on the basis of the information available that the proposed landfill/landraise facility can be developed satisfactorily without undue risk to stability of the structure. Hydrogeological or previous mining conditions have been considered and the results of the stability and basal heave analysis are within the target factors of safety.

Visual Impact and Landscape

The proposal includes the completion of the existing and approved landfill and engineering operations at Tip 871. These developments have been the subject of previous planning applications and have been considered to be acceptable. However these developments are not without their own impacts, although they will continue for a relatively short duration in comparison to the proposed landfill extension.

The Environmental Statement has developed an assessment of the visual impacts of the extension area onto Tip 890 with use of photomontage analysis and recognised guidelines for landscape and visual assessment.

The landraised structure to provide landfill space would be an elongated mound some 36 metres above original ground level. After settlement it is anticipated it would be in the region of 24-26 metres above the original ground level. The majority of the settlement is anticipated within the first five years.

The surrounding landscape is composed of undulating moorland plateaux and sloping valley sides and the valley floor where the landraise structure would be constructed. Whilst the proposed landfill will not have a direct impact on the upland plateaux there would be some impact on the tranquillity and undisturbed nature of these areas due to engineering activity. Similarly such impacts on the landscape and character of the sloping valley sides would be experienced during the landfill operations. The greatest impact in landscape terms will be the generation of a tip structure in the valley floor which will look man-made and somewhat incongruous with the remaining landscape of the area to the north and east. The proposed mound, whilst relatively isolated in nature will reflect the finished level of the existing landfill although finished levels will be some 12 metres lower.

The greatest impact on landscape character views would be from the land to the east from the A474 and the minor road and isolated properties in that area. These changes are considered to be significant until long term restoration has established in the form of species rich grasslands, moorland and hedgerows.

To the south the existing landfill has already created a significant structure that has a major impact in landscape terms although restoration and aftercare should reduce the overall impact of the structure in the longer term.

Views of the landfill extension will be prominent and significant from isolated properties to the west, the minor road leading up to the Barran road at this point

and footpath No. 40 that leads from the minor road towards Nant Melyn farm and the north.

Views of the proposed tip would also be possible from the A474. These would be fleeting glimpses in summer with full leaf conditions. During the winter period a more prominent outlook towards the tip would be available. The operations will be largely out of view from residential properties to the north and Cwmgors although glimpses may also be available from the nearest properties during the winter period. The properties along the A474 and facing westwards would view the structure particularly during the winter.

The visual impact of the proposed development will change over time. The operation of plant and machinery will be prominent in the initial stages during cell construction however filling of the voids at a lower level would, in general, be well screened. As filling increases in height, plant movements and h.g.v. movements may become prominent during periods of tipping to final levels and capping. As the proposed tipping is to be carried out in a phased manner with progressive grass seeding of cells 1 and 2 in the initial 12-30 months, the external appearance of the operations will be mitigated to some extent. However such operations during tipping would be significantly visual from the footpath to the west, Nant Y Gafaelau Farm and from a part of the minor road above the site to the west.

Longer distance views from the minor road and isolated properties to the east would occur although the impacts will be reduced due to distance of some several hundred metres. The use of lighting during periods of darkness would have some impact.

The scope for mitigation is relatively limited in the shorter term primarily because of topographical characteristics and land not in the control of the applicant. The progressive restoration of cells and embankments and the grass seeding of spoil mounds will help to mitigate the impact of such operations and structures.

However, once tipping is completed, the final landform will represent a man made mound and whilst the long term establishment of vegetation will reduce this impact, the development will still form an incongruous feature in the landscape.

The continued construction of the current landfill and any additional operations at Tip 871 are not considered to be significant factors in the determination of this application in visual and landscape terms given the relatively short duration of the remaining operations. However the overall restoration and aftercare

strategy will contribute to a better integration of these retained areas into the local landscape. Ancillary operations, including the leachate and landfill gas compound and other structures such as water treatment areas are not considered to be dominating factors in visual or landscape terms.

The overall visual impacts of the proposed landfill operations are considered to be relatively significant in local terms although such operations are quite some distance from the larger portion of the residential community. The closest farmholding to the west, Nant y Gafaelau Farm and users of the public rights of way and minor road will be most affected in visual and landscape terms.

Nature and Archaeological Conservation

The application site and its immediate environs have been the subject of an ecological assessment within the environment statement. The assessment includes the results of various habitat surveys of the area, the riparian habitat of the Upper Clydach River, and further updating surveys including those for mammals, invertebrates, birds, reptiles and amphibians. Specific regard has also been undertaken with regard to habitats that may be of local conservation value, particularly those identified within the Local Biodiversity Action plan, and to those species of wildlife that are either protected by The Wildlife and Countryside Act 1981 (as amended), by The Countryside and Rights of Way (CROW) Act 2000, and other species protected under European legislation as being included in the Conservation (Natural Habitats and c) Regulations 1994. No statutory or non-statutory designated sites exist on or within immediate locality.

Habitats

The current status of this site is considered to be of low ecological value. Similarly, tip 871, currently being extracted for colliery shale and utilised within the current landfill as engineering material, is disturbed by excavations and ancillary workings. No further changes are proposed to the operational arrangements at tip 871 and consequently no further damage is anticipated to any areas of adjacent ecological areas of interest. To the north west of tip 871, field enclosures, which are composed of mire habitats, can be managed for the long term benefits and local BAP targets.

Based on the surveys and assessments, the former tip 890 does not support habitats or species of note and is considered to be of less than local nature conservation interest. The surveys indicated that the former colliery tips which had been reshaped and reseeded in the late 90s had a mosaic of poor, dry, acid grassland and wetter rush pasture where they were undisturbed from current soil

storage and occasional subsoil mounds. The southern end of this extension site is still subject to infrequent activity of soil and colliery shale storage. The undisturbed area had an abundant proliferation of soft rush and Juncus effusus.

To the northern extremity of the proposed development mire vegetation occupies two field enclosures that are classed as purple moor grass of a national vegetation classification called M25, Molina caerulea – Potentilla erecta. Where tufted grass becomes more dominant the area has a closer affinity to national vegetation classification type M23 Juncus effuses/acutiflorus – Galium palustre rush pasture, but still with affinities with the M25 mire.

M23 and M25 habitats are not generally considered in the current CCW draft guidance for the UK Biodiversity Action Plan (BAP) as priority habitat in Wales. The exceptions are where they are of large size (5 ha+), where they are known to support rare or declining species, or where they are remote from upland fringes. This implies that the study area mires are not typical of the UK BAP priority habitat category.

Locally, however, the Biodiversity Action Plan for Neath Port Talbot includes M23 and M25 habitat within the section relating to purple moor grass and rush pastures. This local BAP sets goals for the restoration or management of such pastures, particularly where they may be of value for known populations of rare or declining species. The M25/M23 habitats affected by the development are considered to form two habitat blocks of local nature conservation interest for their botany.

Approximately 0.75 hectares of this area identified within the planning application site is to be lost to settlement lagoons construction. This will involve the loss of some amphibian habitat and the purple moor grass and rush pasture (Molinia tussock). An objective of the Neath Port Talbot Community Plan 2002-2012 is to "conserve and enhance local wildlife and their habitats……..." and a specific target is to "halt the loss of scarce habitats and species supported by habitats as identified in the Local Biodiversity Action Plan".

The proposed development requires appropriate areas for the treatment of surface water through settling lagoons and other ancillary drainage. The extent of the development requires such areas to be positioned at this northern extremity of the site. Whilst the construction of settlement lagoons at this location would have some degree of impact on the habitats identified above, the overall strategy and the provision of a mitigation and enhancement management plan proposed within the application allows for appropriate compensation for those areas lost in the development. Furthermore, the area to be lost to these

water treatment facilities would be relatively small and is not UK priority habitat and it is therefore considered that no overriding and significant weight can be given to the loss of this portion of mire habitat.

Invertebrates

The river corridor and areas of land around tip 890 and 871 are of greater interest to invertebrates than the tips themselves. The habitats bordering this site include the river corridor, together with adjacent fields. The purple moor grass mire may support low densities of the plant Devil's Bit Scabious, which is the food plant for the protected species of the butterfly marsh fritillary. However, no such colonies have been found in the area.

Reptiles and Amphibians

Reptiles and amphibians have been surveyed and no recorded protected species were found within or immediately adjacent to the proposed development. Although some common lizard, frog and palmate newts were found on the site, none of these species or any other common amphibians are protected under the Wildlife and Countryside Act and none are designated priority species under the CROW Act Section 74, or included in the UK or NPT BAP.

However, the northern area of the extension site adjacent and within the mire habitats is considered to be of local importance for its amphibians, and a suitable site for the translocation of local population can be provided, and the construction of ecologically friendly ponds and ditches will mitigate any impacts. No great crested newts or other protected species were found during the survey.

Birdlife

The development site is not considered to be a significant habitat for bird species and no evidence of important ground nesting species was found. Whilst an increase in the vegetation on the undeveloped areas of tip 890 could have increased the number of bird species present, it is considered that the woodland and river corridors and the surrounding grassy marshland are the more important areas for the local bird population.

Linnets, which are protected under the Wildlife and Countryside Act 1981, were recorded feeding in the open, however, suitable scrub for nesting will not be affected by the development and the loss of open habitat for feeding can be mitigated by the provision of new nesting habitat as part of the restoration and aftercare scheme. The creation of a species rich acid grassland on the

restoration of the site would also benefit a range of seed eating species including linnet.

Red Kite, also a listed species, under the Wildlife and Countryside Act 1981, has been observed flying over the site. Kites are carrion eaters and may hunt and feed over a wide area. However, there is no suitable breeding habitat on the proposed development site and no indication that the birds breed close enough to the site to be disturbed by normal site activity.

Mammals

Badgers are highly likely to be present in the locality but very little evidence was found on tip 890 or other areas of the development that badgers are using these areas. The habitats on the tips provide very little feeding opportunity and the site has a negligible nature conservation interest for badgers.

Foraging bats are likely to use the margins of the sites, particularly the woodland. However, a survey has been undertaken of buildings and tree structures and no suitable areas have been found for the use by roosting bats. The loss of the site for potential feeding habitat for bats is considered to be a minor adverse impact. However, future vegetation structure on the restoration of the site would prove to have a beneficial impact on local bat population.

Otters generally have large territories and the area of the river corridor adjacent to the site is likely to only form a very small part of any otters territory. The molinia tussock and scrub fields could provide good lying up sites. Whilst otters are known to use the catchment of the Upper Clydach River, none were recorded during the surveys. Further surveys will be repeated in advance of any lagoon construction or habitat clearance to establish if any further encroachment into the habitat has occurred since the original surveys.

In conclusion, it is considered that the proposed development will largely impact on land of low conservation interest and have only limited and peripheral impacts on habitats and species including those protected under specific legislation.

Mitigation measures will be provided to compensate for the partial impacts on the areas of M23/25 mire pastures and amphibian habitat. The restoration and aftercare strategy introduces significant ecological, mitigation and enhancement works and should result in a reasonable ecological gain in the longer term and meet the objections of the Community Plan in this respect.

Archaeology

An archaeological assessment has been carried out in accordance with the Institute of Field Archaeologists Standards in British Archaeology. The proposed site was investigated and unknown sites visible from the development were noted and photographed. Recognised assessment criteria were carried out and the archaeological and historical background of the site and area have been considered.

Whilst the area in general has a considerable historical background of local interest, the proposal has no direct effect on Scheduled Ancient Monuments or Listed Buildings, no known effects on other archaeological interests within the site, and will have no excessive adverse effects on the historic landscape of the immediate locality.

Glamorgan Gwent Archaeological Trust, as advisers to the planning authority, do not have any objections to the positive determination of the application.

In any area with considerable human activity and previous settlement and development it is inevitable that a considerable amount of cultural heritage exists in local terms however no direct affects on any archaeological resource is anticipated by the development.

Hours of Operation

Theses are generally outline in the report and assessment has been made under both operational and for transportation. Conditions can be adopted to control hours of operations to protect environmental issues.

Duration of Operations

The duration and composition of each phase has been outlined previously. The advice is that suitable conditions are imposed to ensure that, operations are commenced, carried out in accordance with the phased programme and various stages of the development completed. Appropriate conditions can be adopted to cover these points.

Reinstatement of the Site

Again the advise is that suitable conditions are imposed to ensure the satisfactory reinstatement of the site and such conditions are recommended.

Location of Waste Management Facilities

In line with the proximity principle waste should be managed or disposed of as close to the point of its generation as possible. The location of waste management facilities are required to be located in appropriate locations in order to reduce the environmental impacts associated with the transportation of waste. It is also necessary to provide such facilities to ensure that those producing waste take responsibility as far as possible for dealing with it.

In Neath Port Talbot proposals to improve waste management within the area have been based primarily on the materials recovery and energy centre (MREC) at Crymlyn Burrows which will manage all household and some trade waste collected in the County Borough. Civic Amenity sites located at Cymmer, Pwllfawatkin and a new facility at Briton Ferry will also provide an input into the recycling and recovery of the waste stream. The MREC at Crymlyn Burrows will also manage all of Bridgend County Borough's household waste and some trade waste. With inputs into the MREC likely to be 166,000 tonnes per annum it is anticipated that some 53,000 tonnes of the residue from the MREC could be needed to be disposed to landfill . This includes bottom ash from the waste to energy part of the waste treatment stream. However, fly ash from the plant is likely to be classified as a special waste. The Pwllfawatkin extension, is to be classed as a non-hazardous site under the Landfill Regulation 2002 and therefore the facility cannot receive such fly ash. However the MREC is consented to an input of 261,000 tonnes per annum which could yield 83,000 tonnes per annum for landfill.

The major part of the municipal solid waste stream is therefore directed to the MREC facility along with some trade waste. The throughput rate at the MREC will need a specific disposal facility for these residues of the recycling, composting and energy recovery process. The nearest landfill location is Tir John near Swansea which is no more than 3 miles from MREC. However this facility is restricted to the municipal waste generated in Swansea. There is also only a limited capacity of a year or even less available at the site.

In assessing the quantity of waste likely to be generated within the Authority it is necessary to consider two scenarios as identified in the Regional Waste Plan. Option 6 being that set out in the Plan, but subject to Option 1 being planned for as a minimum in the UDP.

In respect of Option 6, the preferred option, which would achieve the 2020 strategy targets by 2013 it is estimated that for the period from 2006 to 2016 the total landfill void requirements are as follows.

Municipal waste 659,552 tonnes, construction and demolition waste 38,185 tonnes, Commercial/Industrial Waste 669,513 tonnes and agricultural waste 510 tonnes, giving a total of 1,367,760 tonnes.

In respect of option 1 which achieves the targets for 2013 by that date, it is estimated that the total landfill void requirements are Municipal Waste 659,552 tonnes, construction and demolition waste 180,016 tonnes Commercial/Industrial waste 940,788 tonnes and agricultural waste 2,337 tonnes giving a total of 1,782,693 tonnes.

This application to deposit 1.8 million cubic metres which equates to approximately 1,665,500 tonnes over the same period would therefore fall between the two options. It should be noted however that the waste emanating from within the Authority accounts for 19% of the regional total.

The proposal for the extension site at Pwllfawatkin could provide a facility within 15 miles of the MREC plant. Existing alternatives at Aberdare, Merthyr Tydfil and Nant Y Caws in Carmarthen would be approximately twice this distance.

The former Giants Grave landfill facility in Briton Ferry has closed, but has an extant planning permission for a further 3 years however existing cells have been filled to capacity. An application has been made to the Environment Agency for a new PPC permit however the proposed arrangements do not conform to the planning permission. The site is located in a flood plain and there may be environmental complications for the development of additional cells at the site. It is considered on the basis of such environmental constraints that the prospect of landfill capacity, becoming available at the Giant's Grave site is uncertain and unlikely to come forward to meet the identified need. There are no other suitable landfill sites proposed for the area or its environs in the near future or medium term.

The Pwllfawatkin landfill site and its existing waste management infrastructure and facilities is therefore considered to be the only alternative option at the present time, within reasonable distance of the main waste stream. In regional terms, it can also provide capacity for other waste facilities where pre-treatment of waste would have occurred at civic amenity sites, waste transfer stations etc.

In line with self sufficiency, the waste planning process should ensure that there is sufficient capacity in terms of waste management facilities to manage wastes produced in a given area. There is no exact definition as to the relative area that self-sufficiency should apply and depending on the waste stream, this could be at the single local authority, a region of Wales, the whole of Wales or the wider

U.K. However, the principle set out in the Regional Waste Plan is for each Authority to secure the capacity for the various waste arisings in their area within that area or by agreement with neighbouring authorities.

On the basis of the above it is considered that the location of the proposed waste management facility complies satisfactorily with the proximity and self sufficiency principle given the waste stream framework of the locality and region.

It should be noted that the Landfill Directive as implied by the waste hierarchy, requires a significant move away from the tradition of disposal of waste to landfill, unless the waste cannot be further treated, or it would not be economically viable to treat or it is prohibitively impracticable or environmentally harmful to treat in any other way.

With the implementation of effective waste minimisation, re-use and recovery by composting, recycling or the generation of energy there should be a reduction in waste remaining for disposal.

There is a general acceptance that even with any significant increase in reuse, recycling and recovery certain wastes might only be dealt with by disposal e.g. residues from heat treatment and other exhausted material. For any given period where landfill is the main available option and for those materials still destined for disposal only, sufficient capacity needs to be provided.

It is however acknowledged that any new landfill capacity at Pwllfawatkin would need to be secured in the longer term to serve the landfill requirements emanating from within the County Borough and thereby comply with the proximity and self sufficiency principles.

Best Practicable Environment Option (BPEO)

The Governments advice states that Local Authorities should determine BPEO when taking planning decisions on suitable waste management sites. This is defined as "the outcome of a systematic consultative and decision making procedure which emphasises the protection and conservation of the environment across land, air and water. The BPEO procedures establish, for a given set of objectives, the option that provides the most benefits or the least damage to the environment as a whole, at acceptable cost, in the long term as well as the short term."

Stage 1 (Current Position)

In this respect the current arrangements for management of household and commercial waste within the Authority has been outline above. The expectations of and the planning consent for the Materials Recovery and Energy Centre at Crymlyn Burrows realises that up to 35% of the waste stream will need to go to landfill. The exact volume will depend on the success of recycling, composting and energy production.

Stage 2 (Review of criteria)

In reviewing the national criteria that has been defined for waste management the following comments apply.

Environment

The main issues regarding the Environment are addressed elsewhere in the report. (Air, land and aquatic environment, cultural heritage, local amenity, and natural heritage) in respect of the others, global climatic change is not considered to be of any significance given the limited life span of the proposal, non renewable resource use is again not considered a significant issue. With regard to accidental risks, the regulatory procedures in place through the waste licence and planning together with construction details should reduce these to a minimum.

Economic

With regards to the economic considerations it is considered that the proposal would not have major impacts on the local economy. The costs are totally borne by the private sector and will be reduced by the availability of engineering material alongside and existing infrastructure.

Social

The Development will retain some 24-30 persons employed who have the necessary skills. The producers of waste will be responsible through gate prices except the Civic Amenities Site where it is considered that the need for the general public to be able to deposit waste free of charge has overriding environmental and social benefits. In respect of public acceptability and social implications whilst there are numerous objections to this proposal this is addressed in the conclusions of this report.

Practicability

The applicants are sure that the development can be delivered and having considered the detailed specifications, the proposal is technically feasible. The proposal makes the best use of existing facilities and expertise and is flexible in that should the need for landfill dramatically reduce the site can be scaled down without adversely affecting restoration.

Compliance with other Policies

This is addressed elsewhere in the report.

Stage 3 Review of Options for household and commercial waste

In respect of the options for Neath Port Talbot, in view of the volume of this waste stream, the nature of the collected material and environmental, economic, social, practicability and compliance with policies, the Authority has concluded that the best option for the majority of this waste is that of Mechanical and Biological Treatment (MBT). The Materials Recovery and Energy Centre at Crymlyn Burrows is this type of facility.

Stage 4, 5 and 6 (Appraisal of options, select 2 or 3 best options and review of best or optimal solutions

This relates to option for dealing with waste stream. In view that this Authority has already decided that the MBT is the best option, and the Regional Waste Plan has also concluded the best option for the stage having regard to BPEO, these stages are considered unnecessary.

Stages 7 – 10 (These relate to the same stages as 3, 4, 5 and 6 above but for industrial, construction and development waste)

These waste streams are generally included in the above assessment.

Stage 11 Consultations

A consultation exercise has been carried out for the Regional Waste Plan and extensive publicity, consultation carried out for this current application.

BPEO Conclusion

The County Borough has decided that its targets for waste management will be met by the MREC at Crymlyn Burrows. This facility also caters for Bridgend

County Borough Council's household and municipal waste and has a planning consent to handle a further 100,000 tonnes of waste from elsewhere. This facility requires landfill which could equate to some 83,000 tonnes per annum. There are currently no other alternative sites for landfill within the area. Whilst a site at Briton Ferry has a valid planning consent until 2007 and a waste management licence, there is no proposal to re-open this site in the immediate future. Although there is a current application to the Environment Agency for a PPC permit this does not comply with the planning consent and due to the location of this area adjoining the River Neath it could have serious problems in meeting the Environment Agency's strict requirements. It is also not possible to assess all issues without specific details as to the available capacity and technical specifications. There is a serious lack of landfill capacity within the area. It is considered impracticable to expect any new other site to be developed and available within the timescale to meet the shortfall identified. If waste had to be transported out of the County to available sites, excluding Tir John which would appear not to be available, the nearest of which are at Nant Y Caws, Aberdare and Merthyr, this would score badly against the self-sufficiency or proximity principles.

It is concluded therefore that this proposal is the Best Practicable Environment Option for the landfill element of the Authority's waste strategy.

Health Issues

The National Waste Strategy for Wales June 2002 – Wise About Waste, and TAN 21, highlights the need to take health into account in relation to waste management facilities. Health Impact Assessments are considered as a means of taking health into account in the decision-making process so that the potential health effects on people of policies programmes, and other developments – positive or negative – are not overlooked.

Health risks are quantified by considering the level of hazard, the pathways to a receptor, and the likelihood of that receptor being adversely affected by the hazard (the 'source-pathway receptor' methodology).

Annex 16 to The National Waste Strategy for Wales describes the concepts of Health Impact Assessments and states that the overall aim is to: 'remove or mitigate any potential negative effects on people's health of a proposal or development and to recognise and, if possible, to enhance any positive impacts and benefits.'

The applicant has submitted a HIA. Five potential exposure pathways have been identified at Pwllfawatkin, and the exposure routes for contaminants from the Pwllfawatkin landfill site have been identified. These include:

The migration of gaseous emissions and aerosols below or above ground level.

The migration of soluble contaminants (leachate) in surface water and ground water.

The migration of airborne dust (including fibres and biological material).

Direct contact with waste.

Pests, vermin and birds.

THE HIA states that qualitative and generic quantitative assessment criteria, have where appropriate, been used to demonstrate that no significant pathway exists for the exposure of sensitive receptors to contaminants from the landfill that may have an impact on health, and it is also concluded, within the HIA, that the site does not result in negative effects on the health of residents near to the site, or for those using the site for agricultural or amenity purposes following completion of landfilling. Consequently landfill operations are considered within the HIA as being in accordance with the health protection objectives of The National Waste Strategy for Wales.

Health issues in relation to waste facility sites, particularly landfills, have been the subject of considerable debate and research in recent years. Whilst it is the function of the Waste Management Licence to ensure that adequate protection is afforded to both environmental and human health it is necessary where relevant to the development, that any impact on human health issues are taken into account in planning decisions.

The evidence provided by research studies like EUROHAZON, Nant-y-Gwyddon, and SAHSU suggest that there could be a link between living adjacent to such sites and adverse reproductive outcomes e.g. congenital abnormalities etc. However, The National Waste Strategy for Wales does state, in respect of health, that ‘All activities entail risk. While research is continuing to address concerns, there is no conclusive evidence of material health risks to those working in or living in the vicinity of modern waste management facilities.

In May 2004 Defra published a Review of Environmental and Health Effects of Municipal Waste Management. This sets out an independent review of the

available evidence. The review brought together evidence from existing literature on the effects of waste management from the U.K. and abroad. It covered all major municipal waste management activities including landfill. It concluded that the weight of evidence indicates present practice for managing municipal waste "has at most a minor effect on human health and the environment particularly when compared with everyday activities." The report also recommends further studies to improve the understanding of the health and environmental effects of waste management.

The report concludes that detailed studies have found that living close to landfill site does not increase the chances of getting cancer to a level that can be measured. The report also indicates that the most important impact from landfill sites at the national and global level is emissions of greenhouse gases such as methane. Methane emissions from landfill account for about 27% of the national total.

Despite all such research, no exact cause or link has been proven between landfill sites and the health of populations in their vicinity. Nevertheless, such research papers and studies are inevitably likely to raise concerns within populations surrounding landfill sites.

Whilst advice from Public Health sectors indicate that there may be a link between living adjacent to landfill sites and reproductive outcomes it is stated by them it is possibly that other factors which could not be measured in such studies might be an explanation.

Not to dispose of waste in an appropriate manner would inevitably hold much higher risks to society at large. Provided that the waste deposited in any landfill has undergone the tests within the principles of the waste hierarchy, then landfill capacity will inevitably be required for such wastes and residues and such sites will be required in due course.

In consideration of all the above and available facts and issues, it is viewed that no overriding reasons can be justified on planning grounds to resist the proposed development on health grounds.

Objections

In response to the objections the following comments are offered.

1-9. It is considered that Heath issues, traffic and transportation, nuisance, safety, water pollution visual amenity and sustainability have been addressed in the report. In respect of the Management of the site, the

Environment Agency are a Government Agency with the necessary qualified staff and the Authority has full confidence in their ability to regulate the site through PPC. The site will not accept hazardous waste.

10. The relationship of the site to its environs has been addressed.
11. There is no evidence to suggest that such uses would be deterred from the general area.
12. The site would need to be worked as a whole unit and if this application was refused the restoration requirements for the existing site would need to be carried out.
13. The proposal has been considered on its own merits.
14. The Glamorgan Gwent Archaeological Trust are satisfied with the assessment.
15. There are no legal requirements to secure restoration bonds for such development suitable time conditions can be imposed. However financial provisions have to be made within the PPC.
16. The existing tip employs some 24-30 personnel.
17. All representations have been considered in the report.
18. It is considered that the proposal does not prejudice the Communities First Programme which assists the Gwaun Cae Gurwen area.
19. This is not as such a material planning matter.

With respect to the objections from the Pontardawe Town Council, Gwaun Cae Gurwen County Council, Rhydyfro and Gelligron Action Group, the CPRW, Peter Black AM, Councillor Madge and Amman Valley Enterprise Communities First Partnership have all been addressed in the report.

As regards the Cwmgors and Gwaun Cae Gurwen Environmental Watch Group, a number of issues raised have been addressed in the report. The following are those considered to need further comments.

1) There are no planning conditions required under the existing consent to limit any of the source of waste material from within the Neath Port Talbot area, or to limit the amount to be tipped in any one year.
2) The dust monitoring information provided has been considered in the context of the whole of the exercise and mitigating conditions of the Star Inn site.
3) The regulatory regime is a matter for the Environmental Agency in respect of PPC.
4) The effect of emissions from the MREC at Crymlyn Burrows is considered acceptable and was addressed as part of that planning consent.

Conclusions

It is considered that the proposal will have an adverse impact on the landscape both during operations and following restoration and aftercare in that the final landform will be noticeable as a man made feature in the landscape. In time the establishment of vegetation will lessen the impact. However during the 12 year operating period the site will be visible from various viewpoints at close and long distances and would adversely affect visual amenity.

In respect of the transportation of material there will be an effect on residents living along and users of the routes. However these routes are generally 'A' class roads which are main arterial routes and are expected to carry the main bulk of the areas heavy goods vehicles and some level of disturbance is considered acceptable. These roads are not used to their full capacity and it is considered that subject to conditions and improvements, the highway network can accommodate the development without undue harm to highway safety.

With regards to the health issue, the overall advice from the Health Sectors is that whilst some studies have suggested a link between landfill sites and health problems, there is no conclusive evidence to prove such a link. Whilst research is ongoing the Authority has to determine this application on the evidence as it stands. There is no such evidence to suggest that the current landfill site poses any unacceptable health problems or that the extension will do so. In all probability, given that the extension will not now receive any hazardous waste, there is likely to be a reduced risk than at present. In general terms if these facilities were denied, uncontrolled and untreated waste disposal would result in far greater health risks to the general public.

It is considered therefore that without any substantiated evidence to prove that this proposal will result in unacceptable health risks to the public, the Authority cannot sustain a refusal on health grounds.

Whilst it is accepted that the proposal will have some adverse impact these have to be balanced against the need for the development and the benefits that this development would have on the region as a whole.

Section 54A of the Town and Country Planning Act 1990 states "where, in making any determination under the Planning Acts, regard is to be had to the Development Plan, the determination shall be made in accordance with the plan, unless material considerations indicate otherwise."

In this respect it is considered that as the proposal would have an adverse impact on the landscape and visual amenities of the area it would be contrary to

Policy EQ13 of the West Glamorgan Structure Plan and Policy EQ14 of the Northern Lliw Valley Local Plan.

In considering other material considerations, whilst the proposal would not comply with paragraph 6.9 of Tan 21 in this respect, the present waste regime, relies on a landfill option. Without this option the collection and disposal of waste could not function. Whilst initiatives and set targets aim to reduce the level of landfill it is realised that this cannot be eradicated in the foreseeable future. Even, taking into account the targets, estimates for the production of landfill waste from within the Authority and including household and municipal waste from Bridgend, which is processed at Crymlyn Burrows, ranges from 1.367 million tonnes to 1.782 million tonnes over a twelve year period. In line with Government advice, this Authority has to take a responsible attitude to ensure that this waste is disposed of as close to its origin as possible. Local Planning Authorities and the W.A.G. are generally not in a position to dictate where those sites are specifically located. This is in the hands of the private sector. There are no viable alternative proposals within the immediate area.

It should be noted that the current site has approximately a year to run before it reaches full capacity and it would take in the region of 12 months to prepare a new cell to accept waste. Therefore if Committee decide that there should be a continuity of landfill within the Authority's area a decision on this application needs to be made in advance of the UDP and the proposed addendum to the RWP. Whilst there are at present alternative sites in Carmarthen, Aberdare and Merthyr these would score badly in respect of the proximity principle and there is no guarantee that waste emanating from the Authority can be accommodated at these sites for any period of time. Therefore to comply with Government Policy in relation to the proximity and self sufficiency principles it is considered that the current proposal is the best option.

On balance therefore it is considered that the need for the development and the lack of alternative sites outweighs the impacts that the development would have and therefore the proposal should be approved.

However, the site is operated by a private company over which this Authority has no commercial control. It should be noted that a contingency contract has been entered into with the developers to ensure that should the facilities at the MREC cease, some of the Authority's obligations for municipal waste residue are taken to the site. However, it is considered that in order to comply with the proximity and self sufficiency principle that any consent should be restricted to ensure that the majority of waste emanates from the local area. In this respect Tan 21 advises that local authorities should not attempt to restrict waste management developments within their boundaries to deal with arisings in their

areas, but as far as practicable waste should be disposed of within a sensibly defined region where it is produced. In this case the region comprises of Neath Port Talbot, Bridgend, Swansea, Carmarthen, Pembrokeshire and Ceridigion Councils, and whilst Pembrokeshire, Ceridigion and parts of Carmarthen would not score well with the above principles, it should be noted that closer facilities exist for these Councils and that economic factors would influence site selection.

It must also be recognised however that Powys County Council lies only some 9-10km away and it would be reasonable to allow a small percentage of cross boundary importation from this area.

A condition is therefore recommended to limit 95% of the waste to be deposited to that emanating from the South West Wales Region.

As the proposal is considered to be contrary to the Development Plan, and is considered to be a major departure, under the Town and Country Planning (Development Plans and Consultation) Direction 1992, should Members be minded to grant consent the application should be forwarded to the Welsh Assembly Government to see if they wish to determine the proposal themselves.

In considering this application its submitted documents and plans all relevant criteria and issues of local development plan policies and national policy guidance have been taken into account along with the environmental information of an Environmental Statement and additional information submitted under the Town and Country Planning (Environmental Impact Assessment) (England & Wales) Regulations 1999.

In arriving at this recommendation the locational requirements of paragraph 1(1) of Schedule 2 of the Landfill (England and Wales) Regulations 2002 have been fully considered in this report together with objectives set out in the Waste Framework Directive. The responses to consultations and representations of the public and environmental groups have also been taken into consideration.

When Local Planning authorities determine EIA application it must record the main reasons and considerations on which the decision is based. This is required under Regulation 21 of the EIA Regulations. Members should clearly record if the basis of the decision has been made on the planning officer's report and/or any other reasons or considerations.

<u>RECOMMENDATION</u>: That the application be referred to the Welsh Assembly Government under the Town and Country Planning (Development Plans and Consultation) Direction 1992 and that the

Assembly be notified that the Authority is minded to approve the application subject to the following conditions and for the reasons set out in this report.

CONDITIONS;

(1)The development to which this permission relates shall be begun not later than the expiration of 2 years beginning with the date of this permission.

Reason

To comply with Section 91 (1) of the Town and Country Planning Act 1990.

(2)Unless otherwise agreed with the local planning authority, the deposit of waste at the site shall cease by no later 12 years from the date of commencement of waste deposition. At least 14 days notice shall be given in writing to the local planning authority of the intention to commence tipping operations at the extension site.

Reason

To provide a period which takes into account of the needs of the operator as well as other planning considerations.

(3)The developer shall notify the Local Planning Authority in writing within 7 days of the date of the following.

(i)The commencement of development.

(ii)The commencement of a new phase of landfill.

(iii)The completion of each landfill phase.

(iv)The completion of restoration of each landfill phase.

(v)The completion of final restoration under this planning permission.

Reason

To enable the Local Planning Authority to control the development.

(4)In the event of a cessation of operations, for a period exceeding 18 months, at any time before the development is completed, a reinstatement and restoration

scheme shall be submitted forthwith to the Local Planning Authority for approval. The scheme shall provide revised details of final levels, restoration, capping landscaping and a timescale for the implementaiton of the scheme and each element within it. The approved scheme shall be carried out in accordance within the approved timescale.

Reason

To secure the proper restoration of the site within a reasonable and acceptable timescale.

(5)Unless otherwise agreed in writing by the Local Planning Authority or as modified or by other conditions of this consent the working, phasing, landscaping, restoration and aftercare of the site shall be carried out substantially in accordance with the following plans:-

Drg. No: JODA/OPW/890/003E (Fig. Ref. 6.1) Site Infrastructure Drawing. June 2001.

Drg. No: JODA/PW/890/018A (Fig. Ref. 6.3) Civic Amenity Site Details (Jan 2003).

Drg. No: JODA/PW/890/007F (Fig. Ref. 7.1) Restoration and Aftercare Proposals (June 2001).

Drg. No: JODA/PW/890/014B (Fig. Ref: 15.5). Pre-settlement contours (Extension Area only). June 2001.

Drg. No: JODA/PW/890/16C (Fig. Ref: 15.6). Design Sections.

Drg. No: JODA/PW/890/17 (Fig. Ref: 15.7). Design sections.

Drg. Ref: SH/PW/12-03/11256. Settlement lagoons and cut off drains for landfill extension.

Plan Ref. No's SH/PW/121-03/11264 to 11269 - material movements plan and phasing.

On no account shall any development extend outside the planning boundary indicated in red on Fig. Ref. 6.1.

Reason

To enable the Local Planning Authority to adequately control the development and to minimise its impact on the amenities of the local area.

(6)Unless otherwise agreed in writing by the Local Planning Authority there shall be no screening, shredding and crushing of waste on the site with the exception of engineering materials required for the construction capping or restoration of the landfill areas or Tip 871.

Reason

In order to protect the amenity of the area and to regulate the use of land.

(7)A survey shall be carried out at intervals of not less than every 12 months, starting from the date on which tipping operations commence at the Landfill Extension area (Tip 890), on all of the areas identified for the construction of landfill cells and waste tipping at the site showing levels to ordnance datum. A copy of the survey shall be submitted to the Local Planning Authority within 28 days of the survey being undertaken.

Reason

To ensure the proper restoration of the site in accordance with submitted plans.

(8)Unless othewise approved in writing by the Local Planning Authority, the landform in each completed phase and surface restoration levels of the extension area shall accord in principle with the pre settlement landform and contours shown on submitted Drawing No. JODA/PW/890/014B (Fig. 15.5) June 2004.

Reason

To ensure the proper restoration of the site in accordance with the submitted plans.

(9)No development shall be commenced until a detailed scheme for the periodic monitoring of the biodegradable fraction of waste deposited at the site and the subsequent review of the volume of surcharging necessary to achieve the approved post settlement restoration levels has been submitted to and approved in writing with the Local Planning Authority. The results of such monitoring and review together with any consequential changes necessary to the final pre settlement levels shall be submitted to the Local Planning Authority for

approval. The development shall subsequently be carried out in accordance with the approved scheme.

Reason

To ensure that restoration levels pay regard to changes in settlement rates that might be achieved over the period of landfill.

(10)No development of any of the proposed leachate pretreatment/holding lagoons, gas flare and pumps, gas utilisation generators and buildings and associated enclosures shall occur unless otherwise approved by the Local Planning Authority. Thereafter, any such development shall only take place in accordance with such detail as approved.

Reason

To retain control over the detailed appearance and treatment of these proposals in the interest of amenity of the area and of nearby residents.

(11)Any leachate treatment facility constructed at the site shall be used solely for the processing and treatment of landfill leachate which has been generated by the Pwllfawatkin Landfill site. At no time shall any other leachate, effluent, or liquor, be imported to the facility for processing or treatment unless otherwise agreed with the local planning authority.

Reason

In the interest of highway safety and in the interest of the amenity of the area and in order to secure the eventual restoration of the site.

(12)On the completion of landfilling the last layer of waste in each phase, the surface levels shall be ascertained by a competent surveyor and any discrepancy between actual levels and those approved shall be immediately made known to the Local Planning Authority. Markers shall be placed to indicate the approved pre settlement reclamation levels, and these shall be retained until completion of final restoration.
Reason

To ensure the proper reclamation of the site in accordance with the submitted plans.

(13)Following the surrender of the Pollution Prevention and Control permit (or any superseding or amending licence regime) or within six months of the

leachate treatment facility failing to be operated for any 12 month period, whichever is the sooner, the facility shall be decommissioned and demolished and the site restored in accordance with details to be agreed with the local planning authority.

Reason

To secure the eventual satisfactory restoration of the site.

(14)Any plant and machinery that may be retained on site for landfill gas control or treatment following general restoration of the site, shall be removed from the site within 6 months of its effective decommissioning. The area occupied by such plant and equipment shall be restored in accordance with details to be agreed with the Local Planning Authority.

Reason

To secure the eventual satisfactory restoration of the site.

(15)Before entering onto the public highway the wheels, undersides and bodies of all vehicles travelling from the site shall be cleaned and in such a condition as to avoid the deposit of slurry, mud or other material upon the public highway.

Reason

To ensure that such reasonable precautions are taken and provisions made as is necessary to prevent the exit of vehicles onto the public highway which would be likely to deposit material on the public highway to the detrimental highway safety.

(16)All vehicles, plant and machinery operated at the site shall be maintained in accordance with the manufacturers specification at all times and shall be fitted with and use effective silencers.

Reason

To ensure minimum disturbance from operations and avoidance of nuisance to the local community.

(17)In respect to the importation of waste for disposal at the landfill and ancillary operations, the permission hereby granted relates only to the use of the access road and access point marked X on approved Drawing No. JODA/PW/890/001E (Fig. 2-2) by vehicles gaining access to or from the site

and no other access or access point shall be used without the prior consent of the local planning authority.

Reason

To provide that any proposed use of alternative access routes and access points can be considered by the local planning authority.

(18)Notwithstanding the provision of condition 17 above, the transportation of material between the landfill site and Tip 871 shasll be via the access points marked Y on Drg. No. JODA/PW/890/001E (Fig 2.2). No other access point shall be used for such operations unless otherwise agreed with the Local Planning Authority.

Reason

To prevent alternative accesses for the transportation of engineering materials or unsuitable spoil that may be inappropriate in highway or amenity terms.

(19)Access into and out of the Civic Amenity site shall be at the access points marked Z on Drg. No. JODA/PW/890/018A (Fig. 6.3) and in accordance with the traffic flows as indicated on the same plan. No other access point or traffic flows shall be utilised for traffic entering and leaving the civic amenity site unless otherwise agreed with the Local Planning Authority. Vehicles removing containers from the waste bays shall operate from the reception area.

Reason

In the interests of highway safety.

(20)Except as may be otherwise agreed by the Local Planning Authority in writing, no more than 125 heavy goods vehicles shall enter the site on any day Mondays to Fridays and no more than 60 such vehicles should enter the site on Saturdays. No such movements shall occur on Sundays, Bank or Public Holidays other than in accordance with the function of the Civic Amenity facility.

Reason

In the interest of highway safety and residential amenity.

(21)In the following conditions the term 'emergency' means any circumstances in which the operator has a reasonable cause for apprehending injury to persons or serious damage to property.

Reason

For the avoidance of doubt as to the meaning of 'emergency' as used in the planning conditions.

(22)Except in an emergency to maintain the safe working of the site, which shall be notified to the local planning authority as soon as practicable, or unless otherwise agreed in writing by the local planning authority, operations, other than water pumping, servicing, environmental monitoring, or maintenance of plant shall only be carried out at the site between the following times:

a)The Civic Amenity site shall be restricted to the following opening times:

From 1st April to 30th October.
08.00 to 20.00 hours
From 1st November to 31st March
08.00 to 17.30 hours

b)Except as may be modified under other terms or conditions of this consent operational development permitted by this consent which shall include the times for the importation of waste into the site for landfill disposal, leachate removal and operations at Tip 871, shall be restricted to the following periods.

07.00 to 17.00 hours Mondays to Fridays.
07.00 to 13.00 hours Saturdays.

No such operations shall occur on Sundays, Bank or Public Holidays unless otherwise agreed.

c)Operations for the covering of waste or for ancillary operations and restoration works shall be restricted to the following periods.

07.00 to 19.00 hours Monday to Friday.
07.00 to 15.00 hours Saturdays.

No such operations shall occur on Sundays, Bank or Public Holidays unless otherwise agreed.

d)Notwithstanding the provision of conditions b and c above, and with the exception of operations for liner welding, operations for the construction, waste deposition, covering of waste and restoration of cell 1 shall only occur between 08.00 to 17.00 Monday to Friday and 08.00 to 13.00 hours Saturdays.

e)Notwithstanding provisions of conditions b, c and d above operations for the construction and removal of surface water treatment lagoons shall not occur except between the hours of 08.00 and 16.00 hours Monday to Friday and 08.00 to 14.00 hours Saturdays.

Reason

To control the time of operations at the site in the interest of the amenities of the area.

(23)No development shall occur on any part of the extension area for landfill (Tip 890) until a scheme and programme of measures for the suppression and monitoring of dust, have been submitted to and approved by the Local Planning Authority. The scheme shall include inter alia:

(a)The suppression of dust caused by the moving and storage of soil and overburden, stone, waste and other materials within the site and the deposition of waste;

(b)Dust suppression on haul roads, including speed limits;

(c)Provision for monitoring and review of the scheme.

Such a scheme shall be implemented as approved and complied with at all times.

Reason

To protect the amenities of the locality from the effects of any dust arising fromteh development.

(24)Unless otherwise agreed in writing by the local planning authority during operations for the first phase being the construction, waste deposition and restoration of cell 1, noise levels arising from the development shall not exceed 55dB(Laeq) (1 hour) freefield at any of the noise sensitive properties identified on plan A attached to this permission.

Reason

To protect the amenities of local residents.

(25)Unless otherwise agreed in writing by the local planning authority and with the exception of the provisions set out in Condition 24 of this consent, noise levels arising from the development shall not exceed 52 dB (Laeq) (1 hour) freefield at any of the noise sensitive properties identified on plan A to this permission following the completion of the deposit of the engineering cap on cell 1 of the proposed landfill extension.

Reason

To protect the amenities of local residents.

(26)Except at such locations and for such periods as may be agreed in writing by the local planning authority, the freefield noise levels attributable to the construction and removal of water treatment areas, as measured at the boundary of the curtilage of any residential or noise sensitive property shall not exceed 60dB(A) Leq (1hr).

Reason

In the interest of amenity of the area.

(27)Any facilities for the storage of oils, fuels or chemicals shall be on impervious bases and surrounded by impervious bund walls. The volume of the bunded compound should be at least equivalent to the capacity of the tank plus 10%. If there is multiple tankage, the compound should be at least equivalent to the capacity of the largest tank, or the combined capacity of interconnected tanks, plus 10%. All filling points, vents, gauges and sight glasses must be located within the bund. The drainage system of the bund shall be sealed with no discharge to any watercourse, land or underground strata. Associated pipework should be located above ground and protected from accidental damage. All filling points and tank overflow pipes should be detailed to discharge downwards into the bund.

Reason

To prevent pollution of watercourses

(28)Prior to the commencement of any engineering operations on the Landfill Extension site (Tip 890) a landscaping scheme, for the treatment of top soil and

subsoil and overburdened mounds, and any other parts of the approved area not to be affected by the development shall be submitted to the local planning authority for approval and shall be implemented in the first planting season following the approval of the scheme by the local planning authority in accordance with the terms of such approval.

Reason

To minimise the visual impact of the development by ensuring that areas disturbed, including faces of excavations and slopes of fill, in the initial development of the site but which are then no longer required for continuing operational purposes are landscaped at the earliest opportunity.

(29)All surface water drainage from parking areas and hardstanding shall be passed through an oil interceptor designed and cosntructed to have a capacity and details compatible with the site being drained prior to discharge into any watercourse. Roof water shall not pass through the interceptor.

Reason

To prevent pollution of watercourses.

(30)Drainage ditches, settling ponds and lagoons shall be regularly desilted and maintained in such condition that they are able to perform effectively and efficiently the purpose for which they have been provided.

Reason

To ensure that these facilities continue to function effectively and efficiently throughout the operational, restoration and after-care period.

(31)With the exception of the construction of water treatment facilities and associated drainage , the leachate and landfill gas compound, and the erection of fencing, no other engineering works or landfilling shall occur within 40 metres of the Upper Clydach River within the Landfill Extension site (Tip 890), unless otherwise agreed with the local planning authority.

Reason

In the interest of nature conservation.

(32)Prior to the construction of any additional settlement lagoons on the northern and eastern areas of the proposed landfill extension area as shown on

Drg. Ref. SH/PW/12-03/11256 a survey shall be undertaken by a suitably qualified ecologist to establish if any otter resting sites have developed since the approval of consent. The results of such a survey shall be submitted to the local planning authority for its approval. Should the surveys find evidence of otter activitiy mitigation methods shall be provided within the scheme.

Reason

To determine if otter resting sites have been developed since the grant of consent.

(33)Prior to the construction of any additional settlement lagoons or drainage on the proposed extension site, an Ecological Management Plan shall be submitted to the Local Planning Authority for its approval in accordance with the principles set out in Chapter 16 of the Amended Environmental Statement dated August 2003. The management and enhancement plan shall include interalia,

- An area of land no less than 0.5 hectares set aside to recreate purple moor grass habitat.

- Areas that should positively promote habitats and wildlife identified in the Local Biodiversity Action Plan.

-The fencing of priority habitats woodlands, and other conservation areas.

- The translocation of amphibians.

- The planting of settlement ponds/aquatic fringes.

The approved Ecological Management Plan shall be implemented as approved.

Reason

To ensure appropriate mitigation and enhancement of areas of ecological interest and the provision of additional nature conservation habitat and wildlife in areas not affected by the proposed development.

(34)Unless otherwise agreed with the local planning authority extraction of colliery shale and other ancillary operations shall cease on Tip 871 within 24 months of the commencement of tipping operations at the landfill extension site (Tip 890) and restoration of Tip 871 shall be carried out in accordance with details set out in Chapter 7 by the Amended Environment Statement (Amended August 2003) and Drg. No. JODA/PW/890/007F (Fig. 7.1).

Reason

To ensure satisfactory restoration of Tip 871 at the earliest possible opportunity in the interest of the amenities of the area.

(35)Unless otherwise agreed with the local planning authority or as approved under other conditions of this consent, the restoration and aftercare of the site shall be carried out in accordance with the principles contained in Chapter 7 of the Amended Environmental Statement (Amended August 2003) and Drg. No. JODA/PW/890/007F (Fig. 7.1).

Reason

To establishment a strategy for the satisfactory restoration of the site.

(36)In accordance with the provision of Condition 35 above and within 18 months of the commencement of the deposit of waste into the landfill extensions site (Tip 890), a detailed scheme in relation to the restoration and aftercare of Phase 1 and 2 shall be submitted to the local planning authority for its approval. The details shall include interlia,

1. Restoration

a)the removal of any buildings, plants and machinery and the reinstatement of the site and access roads by clearing plant, buildings, machinery, roadbase, concrete or brickwork.

b)details of respreading of overburden, subsoil and topsoil previously stripped from the site, specifying depth and placement.

c)the ripping of any compacted layers of final cover to ensure adequate drainage and aeration.

d)the machines to be used in soil respreading operations.

e)the final levels of the reclaimed land and the gradient of the slopes which shall be graded to prevent ponding or erosion of surface water.

f)the drainage of the reclaimed land including the formation of suitability graded contours to promote natural drainage and the installation of aritifical drainage where necessary, and the position of main outflow ditches and watercourses.

g)the position and erection of fencing, hedge on bank constructions and gates as necessary.

h)the creation of any ponds or water features.

The final contours proposed under the above scheme shall not exceed the post settlement contours as indicated on Approved Drawing No. J0DA/PW/890/007F (Fig. Ref. 7.1). Restoration and Aftercare proposals (June 2001.)

2. Aftercare

The aftercare scheme shall set out in detail the requirements as may be necessary to bring the land to the required standard for the use for amenity i.e. when it is reasonably fit for those uses, and the scheme shall include, interalia, details of the following.

i)the timing and pattern of vegetation establishment including species to be planted, grass seeding mixture, stock type and size, spacing, method and position of planting.

j)cultivation practices for the preparation of the soils, subsoils, colliery shale etc.

k)secondary treatments such as moling, subsoiling, discing, stone picking as necessary.

l)drainage including timing of installation work, maintenance works or temporary drainage measures.

m)fertilizer and weed control to improve soil fertility and control of weed to be based on soil/shale sampling and analysis.

n)a detailed Annual Programme for the first and subsequent years for the Aftercare of the site which shall include, inter-alia, the following information:

(i)Identify the person(s) responsible for the succeeding year's programme.

(ii)Vegetation establishment and layout.

(iii)Secondary treatments such as further moling, subsoiling or fertilising requiremenst.

(iv)Field drainage requirements and maintenance.

(v)Tree and hedge establishment for the years including maintenance such as beating up, weed control, fertilizer application, cutting or prunning.

The scheme shall be implemented as approved.

Reason

In the interest of the satisfactory phasing of restoration and aftercare.

(37)Unless otherwise agreed with the local planning authority and in accordance with the provision of condition 35 above, within 84 months of the commencement of the deposition of waste within phase 2 of the landfill extension area (Tip 890) a detailed scheme in realtion to the restoration and aftercare of Phase 3 to 5 and all other areas not required for any residual operation at the site shall be submitted to the local planning authority for its approval.

The details shall include interlia,

1. Restoration

a)the removal of any buildings, plants and machinery and the reinstatement of the site and access roads by clearing plant, buildings, machinery, roadbase, concrete or brickwork.

b)details of respreading of overburden, subsoil and topsoil previously stripped from the site, specifying depth and placement.

c)the ripping of any complacted layers of final cover to ensure adequate drainage and aeration.

d)the machinery to be used in soil respreading operations.

e)the final levels of the reclaimed land and the gradient of the slopes which shall be graded to prevent ponding or erosion of surface water.

f)the drainage of the reclaimed land including the information of suitability graded contours to promote natural drainage and the installation of aritifical drainage where necessary, and the position of main outflow ditches and watercourses.

g)the position and erection of fencing, hedge on bank constructions and gates as necessary.

h)the creation of any ponds or water features.

The final contours proposed under the above scheme shall not exceed the post settlement contours as indicated on approved Drg. No. J0DA/PW/890/007F (Fig. Ref. 7.1). Restoration and Aftercare proposals (June 2001.)

2. Aftercare

The aftercare scheme shall set out in details the requirements as may be necessary to bring the land to the required standard for the use for amenity i.e. when it is reasonably fit for those uses, and the scheme shall include, interalia, details of the following;-

i)the timing and pattern of vegetation establishment including species to be planted, grass seeding mixture, stock type and size, spacing, method and position of planting.

j)cultivation practices for the preparation of the soils, subsoils, colliery shale etc.

k)secondary treatments such as moling, subsoiling, discing, stone picking as necessary.

l)drainage including timing of installation work, maintenance works or temporary drainage measures.

m)fertilizer and weed control to improve soil fertility and control of weed to be based on soil/shale sampling and analysis.

n)a detailed Annual Programme for the first and subsequent years for the Aftercare of the site which shall include, inter-alia, the following information:

(i)Identify the person(s) responsible for the succeeding year's programme.

(ii)Vegetation establishment and layout.

(iii)Secondary treatments such as further moling, subsoiling or fertilising requiremenst.

(iv)Field drainage requirements and maintenance.

(v)Tree and hedge establishment for the years including maintenance such as beating up, weed control, fertilizer application, cutting or prunning.

The scheme shall be implemented as approved.

Reason

In the interest of the satisfactory phasing of restoration and aftercare.

(38)Unless otherwise agreed with the local planning authority the restoration of the current landfill shall be completed within 12 months of the commencement of the deposit of waste into the landfill extension site (Tip 890) and in accordance with the principles set out in Chapter 7 of the Amended Environmental Statement (Amended August 2003).

Reason

To identify a reasonable timescale for the completion of restoration on the existing landfill.

(39)Unless otherwise agreed with the local planning authority the restoration of Tip 871 shall be completed within 36 months of any commencement of tipping operations within the landfill extension site (Tip 890).

Reason

To establish a reasonable timescale for the completion of restoration on land no longer required for operations.

(40)Unless otherwise agreed in writing with the Local Planning Authority the mechanism, methods, techniques and procedures under the attached Appendix A - Odour Monitoring Action Plan, shall be implemented as and when necessary during all operations at the site.

Reason

In the interest of amenity and in order that any odour complaints verified and justified are addressed adequately.

(41)Prior to the commencement of any operations in connection with the construction of preparatory works, drainage, water treatment areas, or cell

construction on the landfill extension site (Tip 890) a noise monitoring scheme shall be submitted to and approved by the local planning authority. Such a scheme shall include details on the methods and modelling for the monitoring of noise attibutable to the site at any noise sensitive property within 500 metres at the site boundary in any direction and the provision of mitigation methods and action to be undertaken should noise exceed approved levels. The scheme shall be implemented once approved.

Reason

To ensure adequate arrangements are in place for the monitoring of noise associated with the site.

(42)Unless otherwise agreed with the local planning authority and with the exception of any ancillary plant, buildings, and equipment required to be retained for the treatment and handling of leachate and landfill gas, the landfill extension site (Tip 890) and any ancillary operational land shall be restored within 18 months of the completion of waste deposition at the landfill extension site (Tip 890).

Reason

To establish a reasonable timescale for the completion of restoration at the site.

(43)Prior to the importation of waste into the landfill extension site (Tip 890) a scheme shall be submitted to and approved by the local planning authority for the signage, road markings and drainage at the existing access points marked X and Z on Drg. No. JODA/PW/890/001E (Fig. 2.2) and Drg. No. JODA/PW/890/018A (Fig. 6.3) respectively.

Reason

In the interest of highway safety.

(44)Prior to the deposition of waste into the proposed landfill tip extension site (Tip 890) the existing access road from the A474 to the site entrance shall be widened and improved in accordance with a scheme which must be first submitted to and approved by the Local Planning Authority. The scheme shall accord with the principles under the proposed framework for access improvements submitted under the letter dated 8th July 2004..

Reason

In the interest of highway safety.

(45)Prior to the deposition of the waste into the proposed landfill extension site (Tip 890) improved signage to the tip and for the junction of the unslassified road with the A474 shall be erected in accordance with a scheme which shall first be submitted to and approved by the Local Planning Authority. This signage must be maintained in good condition for the duration of tipping opertions at the tip.

Reason

In the interest of highway safety.

(46)Prior to the deposition of waste into the proposed landfill extension site (Tip 890), a scheme for Traffic Regulation Orders on Swansea Road, Pontardawe (adjacent to the Post Office) shall be implemented in accordance with a scheme which shall first be submitted to and approved by the Local Planning Authority.

Reason

In the interest of highway safety.

(47)From the commencement of development to it's completion, a copy of this permission including all documents hereby approved and any other documents subsequently approved in accordance with this permission shall be permanently maintained and available for inspection at the site office.

Reason

To ensure that the operators of the site and any appropriate officer of the local planning authority has access to such approvals on site.

(48)Prior to any preparatory or construction works on the landfill extension site (Tip 890) a scheme shall be submitted to and approved by the local planning authority for the setting up, operating and regular convening of a Site Liaison Committee and the scheme shall be implemented as approved.
Reason

To assist in the control of and assessment of monitoring of the environmental effects of the development.

(49)Prior to any preparatory or construction works on the landfill externsion site (Tip 890) a scheme shall be submitted to and approved by the local planning authority for the setting up of a Technical Working Party and the scheme shall be implemented as approved.

Reason

To assist in the control and monitoring of the environmental effects of the development.

(50)Prior to the commencement of any works for the construction of the landfill cells on the landfill extension site (Tip 890) a scheme shall be submitted to and approved by the local planning authority for the lighting of all areas of development at the site. All lighting shall be subject to health and safety requirements and be angled so as to reduce light pollution to the minimum. The scheme shall be implemented in accordance with the terms of the approval.

Reason

In the interest of amenity.

(51)Prior to any preparatory or construction works on the landfill extension area (Tip 890) a scheme shall be submitted to and approved by the local planning authority for the restriction of the importation of highly molodorous waste into the landfill extension site (Tip 890). The scheme shall identify any such wastes that may be required to be imported into the site and a justification for such operations. The scheme shall be implemented in accordance with the terms of such approval.

Reason

To control the level of highly malodorous wastes in the interest of amenity.

(52)Within 3 months of the commencement of the deposition of waste into the proposed extension landfill site (Tip 890) and every 3 months thereafter until the completion of waste importation into the site, a record of the origin and total tonnage of waste imported into the site for each 3 month interval and the aggregated total of all waste imported into the site shall be provided in writing to the local planning authority.

Reason

In order that the planning authority can monitor the compliance of planning controls and other planning considerations.

(53)Prior to the deposit of any waste into the proposed landfill extension site (Tip 890), a scheme shall be submitted to and approved by the Local Planning Authority for either

(a)The creation of 4.5 metres by 160 metres visibility splays in either direction, with appropriate signing, lining, lighting and anti-skid surfacing,

Or

(b)The provision of a traffic signalled controlled junction, reduced speed limit to 40mph, lighting, signing, and anti-skid surfacing,

at the existing junction of the minor classified road with the A474. The scheme shall also include provisions for removal of such facilities after the cessation of tipping operations at the site and the scheme shall be implemented as approved.

Reason

In the interest of highway safety.

(54)Prior to the commencement of any operations on the landfill extension site (Tip 890), a plan shall be submitted to and approved by the local planning authority, indicating the pre-settlement contours to be achieved on the current landfill as identified in yellow on Plant Ref. B. Such pre-settlement contours shall be designed to provide post settlement contours that do not exceed those indicated on approved Drawing No. JODA/PW/890/007F (Fig. 7.1) - Restoration and Aftercare Proposals. The current landfill shall not exceed the pre-settlement contours as approved under this condition.

Reason

In the interest of clarity and to establish an early indication of the contours to be achieved to accord with restoration proposals.

(55)Prior to the commencement of any operations on the landfill extension site (Tip 890), a detailed scheme shall be submitted to and approved by the local planning authority for the proposed surface water treatment facilities at the site.

The details shall be carried out as approved unless otherwise agreed with the local planning authority.

Reason

In order that the impacts of constructing such facilities can be adequately controlled in the interest of visual amenity and nature conservation.

(56)The local planning authority shall be given a minimum of 48 hours prior notice in writing of any soil stripping operations.

Reason

In the interest of soil conservation.

(57)Soil stripping shall only be carried out when the soil is in a dry and friable condition and between the months of April and September inclusive, unless otherwise agreed in writing by the local planning authority.

Reason

In the interest of soil conservation.

(58)In order to minimise compaction of soils, only those vehicles involved in loading soils shall be permitted on unstripped areas and then only restricted to the minimum necessary to recover the soils. Vehicles used in transporting soils shall only travel over areas of ground that have previously been stripped of topsoil, subsoil and shallow soil-forming material.

Reason

In the interest of soil conservation.

(59)Areas of all haulage roads, temporary access roads handstandings, office and workshop accommdation, lagoon sites, drainage channels and all other areas likely to be disturbed by any subsequent operations shall be stripped of topsoil, and where appropriate, soil-forming material and the materials then placed in appropriate dumps.

Reason

In the interest of soil conservation.

(60)In accordance with the provisions of Condition 35 above and within 12 months of the implementation of this consent a detailed scheme in relation to the aftercare of the current landfill site shall be submitted to the local planning authority for it's approval. The details shall in include, interalia,

a)the timing and pattern of vegetation establishement including species to be planted, grass seeding mixture, stock type and size, spacing, method and position of planting.

b)cultivation practices for the preparation of the soils, subsoils, colliery shale etc.

c)secondary treatements such as moling, subsoiling, discing, stone picking as necessary.

d)drainage including timing of installation work, maintenance works or temporary drainage measures.

e)fertilizer and weed control to improve soil fertility and control of weed to be based on soil/shale sampling and analysis.

f)a detailed Annual Programme for the first and subsequent years for the Aftercare of the site which shall include, inter-alia, the following information:

(i)Identify the person(s) responsible for the succeeding year's programme.

(ii)Vegetation establishment and layout.

(iii)Secondary treatments such as further moling, subsoiling or fertilising requirements.

(iv)Field drainage requirements and maintenace.

(v)Tree and hedge establishment for the years including maintenance such as beating up, weed control, fertilizer application, cutting or prunning.

The scheme shall be implemented as approved.

Reason

To secure satisfactory aftercare of the site.

(61)Unless otherwise agreed in writing with the local planning authority, all schemes approved under the terms of any conditions attached to this permission shall be implemented in accordance with the terms of such approvals for the duration of the development and where appropriate, the aftercare period.

Reason

To ensure that scheme approved under the permission are implemented.

(62)No hazardous waste so defined by Article 1(4) of Directive 91/689/EEC(7) (hazardous waste) or any subsequent amendment to this Directive or Landfill (England and Wales) Regulations 2002 redefining that defination shall be deposited into the site.

Reason

To retain adequate control of the development in the interest of amenity and prevent development of a nature not considered within the application.

(63)Unless otherwise agreed in writing with the local planning authority no more than 180,000 tonnes of waste of any kind shall be imported into the site over any 12 month period.

Reason

To control the scale of development and transportation to a level that is acceptable and in the interest of general amenity.

(64)Unless otherwise agreed in writing with the local planning authority, no less then 95% of all waste deposited in the site shall originate from within the South West Wales Region identified in the South West Wales Regional Waste Plan.

Reason

To ensure that the development is carried out within the principles of proximity and self sufficiency as identified in the Waste Framework Directive.